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SELECTED SOVIET MILITARY TRANSLATIONS

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NEW THINGS WILL NOT COME ABOUT BY THEMSELVES
(POOR PERFORMANCE OF AVIATION REPAIR ENTERPRISES)

Sovetskaya Aviatsiya
/Soviet Aviation/,
30 October 1959, Moscow,
Page 2,
Russian nsp

Engineer-Lieutenant Colonel
Yu. Gusev

What is hindering technological progress in the aviation repair enterprise?

The aviation repair enterprise has a good reputation with party bureau secretary Sosurov. Many highly trained personnel, experienced master craftsmen, technicians and engineers work here. A manifold party organization is the advance guard of the group. The labor union and communist youth organization also constitute considerable strength.

Much has been accomplished by the personnel. The incoming techniques are being adapted successfully, the old is being modernized, new equipment is being built, and the most advanced technology is being introduced. Innovators are doing fruitful work: during the first half-year they submitted 340 suggestions, of which 260 were adopted.

The territory of the enterprise has acquired a new appearance. Along with older poplars there are young trees which have been planted by careful hands, and power trucks glide, and lift trucks move noiselessly on asphalt roads.

Not long ago the enterprise successfully completed a change-over to repair of aviation technology unfamiliar at the enterprise, and began to positively build up the tempo. Although it was not among the leading enterprises of the VVS /Vcyenno-Vozdushnye Sily -- Air Forces/ in the first quarter, in the second quarter it overfulfilled its plan.

The successes of the enterprise are apparent. But has the group done all it can in the struggle for technological progress?

Following the June Plenum of the Central Committee the personnel of the enterprise began to work even more energetically. The necessity for speeding up technological progress was felt by everyone, it was required by life itself.

The innovators set about the task fervently. They began to develop new stands and to improve machine tools. The design bureau urgently undertook the introduction of the new technology and the development of the necessary equipment. It is working out the outfitting of the new sections of the aircraft shop with sandblasting equipment, preparing a

plan for conversion of the boiler plant to automatic regulation of liquid fuel feed, and is designing various accessories. Nor are the technologists lagging behind; everyone of them is attempting to introduce something new in his section.

In all these new undertakings concrete guidance and aid is needed from the enterprise and party leadership. It would be well to unify the innovators in complex brigades and to ensure better supply of materials. The design bureau also is lacking in help and in reinforcements. The shop technologists should be allowed great freedom of action.

However, assistance is withheld. Many useful and necessary matters, for the success of which considerable work had been expended, still remain unaccomplished.

The matter which first attracts the eye concerns the unutilized means of mechanization. For example, a powerful loading crane which had been received a year ago remains unused to the present day. In all respects the enterprise accuses the construction personnel, who absolutely refuse to erect a power line. This in turn is referred to the ferroconcrete structures plant: it promises to erect the columns ordered by the above no earlier than within 8 to 10 months. For all practical purposes the crane is doomed to still another entire year of idleness.

In the meanwhile, this task is resolved much more simply at several other enterprises: a drum with a cable is attached to one of the forward wheels of the crane, and a shallow groove is cut alongside the rails. When the crane moves to one side the cable unwinds, and when the crane moves in the reverse direction the cable is wound on the drum.

Chief Designer A. Zarovnyy knows of this method, but is in no hurry to apply it. In the meantime, very approximate calculations indicate that through failure to utilize the crane the enterprise already has lost a sum equal to the probable cost of fulfillment of the work remaining to be done. Additional lost time will increase this sum. Activation of the crane immediately would release no fewer than 12 personnel and two tractors for other tasks.

A similar situation has developed with respect to an elevator in a new frame. Its lifting mechanism was put out of order when the builders were delivering the finished installation. Thus for ten months radio shop personnel themselves have been lifting 40 to 60 kg blocks to the third story. The head of the shop estimates that more than 100 man-hours per month are lost in that shop in this way. The loss of the instrument repair shop, located one floor lower, is somewhat less than that of the above.

Who should see to the repair of the elevator: the construction organization, which virtually is located far from the mechanisms, or the enterprise, which has an extensive technical base, engineers of all specialties and highly trained personnel, including not a few talented innovators? If the matter is approached from the government's point of view this question is not difficult to answer.

Something similar is taking place in the main shop. For a long time a large automotive crane used to enter the shop for taking down motors, and a rear ladder was used in attaching the controls. The shop personnel, not desiring to wait for action by construction personnel, erected two multiple-pillared crane runways. However, when the crane operator arrived it was found that he was unable to climb up to his cabin; the designers had "forgotten" to provide access to it.

"A helicopter will be called in time" was the distressed remark of shop foreman Shkurat.

Correspondence was taken up with the plan designers. They acknowledged their error and promised to build a ladder or to assist in obtaining metal for a ladder, but have done nothing since then. However, if the design bureau of the enterprise were to undertake this task it could modernize the crane runway, developing for it the same type controls as are used in automatic aerial transportation lines. Examples similar to the above could be listed further. They all indicate that a genuine, persistant struggle for mechanization still has not been developed in this case.

The situation is no better with respect to the introduction of new work methods. The enterprise does not have a single production line, although all the administrators, from the head of the enterprise down to the shop foreman unanimously admit that the production line method is the progressive, and highly productive method of repair of aviation technology. But still, manual labor is used fairly extensively.

Operations such as dismantling and assembly, cleaning and washing, polishing and preservation are performed mainly by hand. It would seem that this should be exactly the point at which mechanization should be introduced first of all, but the results are reversed. The enterprise previously had three wash stands; at present they have been thrown out. To the question why they had suffered such a dire fate, Comrade Zarovnyy answered:

"In the conversion to repair of new technology they ceased to satisfy us. It was found much more advantageous to hire laborers."

"Was it impossible to modernize the stands/"

"Of course it was possible, but very difficult."

Yes, no doubt it is difficult. It is much easier to modernize the scrub brush, making it a two-sided brush, or to devise a special hair clip, in which the author of this suggestion, chief designer Zarovnyy, takes pride. A collection of brushes and scrapers consisting of old files, these are all that the personnel who clean units have at their disposal.

The situation is no better in dismantling and assembly. An engine, for example, contains very many lamellar /kontrovochnyy/ joints. Here they are "opened" fairly simply with the use of a hammer and chisel. After this the worker takes a wrench and begins to unscrew the nut, but the special pneumatic nut looseners which have been received remain in the storeroom. Each turbine blade is removed with a hammer and a punch-out rod, although presses for their simultaneous pressing out of the disc have existed for a long time. It is true that they do not match this engine, but special presses could have been created.

It is asked what the plant party organization is doing in its struggle for realization of the resolutions of the June Plenum of the Party Central Committee.

In the opinion of Party Bureau Secretary A. Sosurov all the necessities have been done: a general meeting was held, resolutions were made, and committees were chosen for realizing the right of control of the activity of the administration.

Actually, an open party meeting was held at the enterprise in July, with the agenda: "Results of the work of the June Plenum of the Central Committee and the tasks of the party organization." The speaker cited concrete examples and figures to indicate the significance of mechanization to the enterprise. In sharply critical and business-like speeches the communists disclosed faults and proposed means for their elimination. The resolution which was adopted should have served to guide the party bureau to action in the struggle for technical progress.

However, this was not achieved. Although Comrade Sosurov was obliged by a special point of the resolution to look more deeply into production, he continues to put in his time in the office.

All is not well in the party organization and with the committees. Three have been selected: for control of the introduction of the new technology, for the quality of production and for material supply. The first is headed by communist V. Farafonov. This committee met only once -- for setting up a work plan. Since that time nothing has been heard from this committee, and the above mentioned plan remains unfulfilled.

But the personnel of the committee includes eight comunists! These are authoritative, respected men of the enterprise, they have a good deal of party experience, are thoroughly familiar with their subject, and are not working at the enterprise for their first year. They include laborers, office personnel and engineers. It seems there is no problem in which this committee would be unable to distinguish itself. Furthermore, the committee should not only expose faults, but also should make recommendations for their elimination, or should give practical assistance in any case.

Unfortunately nothing of the kind is happening. In this case the guilty are first of all the president of the committee, communist V. Farafonov, for not fulfilling his obligations, who were voluntarily removed from leadership by the committees.

New things will not come about themselves. The heads of the enterprise, along with the heads of the party, communist youth and labor union organizations, must devote greater attention to the problem of technological progress, must take more daring action in the work of the modernization of equipment, and must introduce new work methods. This is exactly what is required by the resolutions of the Twenty-First Session of the Party, and of the June Plenum of the Party Central Committee.

SAD STORY CONCERNING FIELD KITCHENS

Krasnaya Zvezda /Red Star/,
15 November 1959, Moscow,
Page 2,
Russian nsp

A. Nikulenkov

How much good hot food means to soldiers when the going is tough! How much time would be lost in halts for preparing meals if there were no mobile field kitchens. Evidently it was not by accident that Aleksandr Tvardovskiy, the reknowned creator of the kitchen, began his famous book about soldiers. Vasiliy Terkin termed as sensible and sensitive the old man who "thought of making soup on wheels." What a pity these warm words cannot be addressed to the present creators of field kitchens.

However, before turning to the essence of the matter, it would be desirable to touch upon the history of the subject of this article.

During the first years of existence of our army mainly single-kettle field kitchens were used by regiments and battalions. At first they were transported on horseback, and later they were mounted on truck-drawn trailers. However, the one-kettle kitchens did not meet the new requirements of that time. Thus in 1937 a three-kettle kitchen with two small ovens was developed. The cook could prepare two courses and tea at the same time with this kitchen. However, the design proved to be cumbersome and unwieldy. Because of this its production soon was stopped. However, after rejecting the unsatisfactory design, the idea of creating a kitchen with three kettles and oven was forgotten.

It would seem that after the war the specialists would have studied the accumulated experience and would have pleased the forces by developing that which was needed. Unfortunately this did not happen.

In 1952 the Directorate of Ration Supply developed two field kitchen models, the KP-2-48 and the KP-2-49. Their advantage consisted of the fact that they had not one kettle, but two. However, it must be plainly admitted that the shortcomings of the new kitchens were much greater than their disadvantages. Industrial specialists of that time also made statements to that effect.

Let us consider the minutes of the technical conference which met 23 November 1954 at the plant producing these kitchens. Participants at the conference noted that the kettles were complex in shape, were of various types, and did not conform to rational production. The specialists arrived at the conclusion that the "commencement and expansion of production of truck-kitchen KP-2-48 is disadvantageous."

Similar conclusions were reached by another plant on 2 December 1954 and by the special design bureau of Glavprodmash /Glavnoye upravleniye mashinostroyeniya dlya pishchevoy promyshlennosti -- Main Administration of Machine Building for the Food Industry/ on 29 November 1954.

Many documents of Uprodsnab /Upravleniye Prodovol'stvennogo Snabzheniya -- Directorate of Ration Supply/ refer to this same point. We have at hand the conclusions of the meeting of 3 September 1954, signed by Engineer Colonels N. I. Kulik and A. I. Shilobreyev. In these it is indicated that four additional kettles of various sizes and design are added with the introduction of two new types of kitchens. This complicates their large-scale production, especially in the transition from iron to stainless steel. However, the production of stainless steel kettles is long overdue, because the iron onew are unhygienic, and in addition they cannot be repaired in the field.

Let us heed the authority of Master Sergeant S. A. Puchkov, who has served 18 years as an army cook. In his opinion the new kitchens are too high. When cooking a meal one must step up onto the running board many times because it is impossible to look into the kettle while standing on the ground. Because of its high center of gravity the kitchen often overturns. The basic facilities for cooking have not been provided: a wash basin, electric lighting, and shelter from foul weather. Even attachments for burning liquid fuel are lacking.

In Uprodsnab, however, they do not listen to the voice of on-the-spot opinion. When it became necessary to cover up the disadvantages of the kitchen, its director was forced to call an expanded conference. In the resolution passed at this meeting, which was held in September 1957, it was acknowledged that the existing field kitchens do not meet the contemporary requirements. Measures for the improvement of the field kitchen also were proposed. However, the resolution, also, remained only on paper. The obsolete kitchens still are being produced at the present time.

During the seven years which have elapsed since 1952 not only the errors which have been permitted by planning could have been corrected, but a more improved design also could have been developed. However, neither one nor the other has been done.

The reasons, it appears to us, must be sought in Uprodsnab, itself.

In 1955 Engineer-Lieutenant Colonel I. M. Belogay was appointed to the office of member of the department for the preparation and supply of food under field conditions. Working on this problem at

various plants, he saw serious shortcomings in the design of field kitchesn and attempted to eliminate them. The plants were generally in favor of his design for a kitchen because it was simple and had many more advantages.

Belogay began to devote most of his attention to the development and improvement of this plan. However, the vice president of the committee, Quartermaster Service Colonel F. Yu. Nikolenko, guided solely by his personal considerations, continuously strove to keep the proposals for improvement of the field kitchens from being included in the work plan. Thus unfavorable relations developed among the group of associates for technical units. Apparently fearing to lose his authority as specialist and director, F. Yu. Nikolenko did not wish to correct the errors which had been permitted. I. M. Belogay then referred the plan to the committee for rationalization and inventions, and prepared a model of the improved field kitchen.

It must be mentioned that the behavior even of I. M. Belogay does not do him credit as a Soviet engineer. He did not apply himself with enthusiasm to his duties. In endeavoring to further only his own plan, Belogay did not attempt to attract the forces of the rationalizers and inventors among the troops.

In July 1958 a variant of the modernized kitchen developed by Belogay was inspected by Marshal of the Soviet Union I. Kh. Bagramyan. Acknowledging the new design to be completely satisfactory, he gave instructions for the elimination of shortcomings and gave the order for the manufacture of a type of field kitchen with light, removable equipment and providing shelter from inclement weather for the cook, after which the kitchen was to be tested in the field with the troops.

Although many years have passed since these orders were issued, as yet an experimental model has not even come under discussion. It is evident to all that the leadership of Uprodsnab, and particularly Comrade Kikolenko, do not wish to part with the old kitchen.

PRIVILEGES FOR DEMOBILIZED SERVICEMEN IN ARRANGING FOR CIVILIAN EMPLOYMENT

Sovetskaya Estoniya
/Soviet Estonia/,
15 October 1959, Tallin,
Page 3,
Russian nsp.

I. Zigura, Secretary of Party Bureau, Party Organization of Military Commissariat of Estonian SSR

Esteemed Editorial Board! I would like to ask your newspaper to clarify the privileges which servicemen who have been transferred to the reserve corps may utilize in arranging for work. I believe that this problem interests not only myself, but other comrades who have been demobilized from the army, as well.

S. Nikiforov

One and one-half months after being demobilized from the ranks of the Soviet Army I entered the same position with the same enterprise where I worked before being drafted. I am interested in whether my period of service in the army is included in the calculation of my work record, and whether a percentage bonus is given for my years of service. Also, I would like to know whether the tax "on bachelors, and on single citizens or citizens with small families" must be deducted from my pay.

A. Krupenin

Every citizen of our country, including servicemen discharged from the ranks of the Red Army and Red Navy, may settle in work in conformance with the training which they have received or the experience which they have acquired. The executive committees of the Councils of Workers' deputies, and directors of enterprises, institutions and organizations are obliged to offer work in conformance with their specialties to demobilized servicemen not later than one month after their arrival at their permanent residences. In no case may the position offerred be lower than that filled by the serviceman before drafted into military service.

Certain noncommissioned, enlisted and naval personnel discharged from military service this year require reinstatement in the same work and in the same positions from which they have been drafted into the army or navy. This requirement does not derive from extant labor legislation: it may be satisfied only through the existence

of the possibilities for such reinstatement and through the agreement of the head of the enterprise, institution or organization.

Many servicemen with secondary education who were transferred to the reserves this year entered higher educational institutions on the basis of privileges in their competitive examinations.

Persons who had completed specialized secondary schools prior to being drafted into active military service and did not then obtain production work in connection with the draft, may obtain work in the specialty in which they had received training in the specialized secondary schools.

In our country, and in particular, in our republic, there are very many regions in which personnel and specialists are needed. They are needed in new constructions, kolkhozes, sovkhozes, RTS's, and in enterprises.

Many demobilized servicemen returned to their own kolkhozes, sovkhozes, RTS's and enterprises and immediately began work, thereby aiding resolution of the tasks of the great Seven-Year-Plan.

Let us answer the second question.

Servicemen who have been transferred from the army and navy into the reserve and who have begun work at an enterprise or in an institution are subject to the income tax and to the tax "On bachelors, single citizens and citizens with small families" on a general basis. The only exceptions are those servicemen serving regular or extended enlistment periods who were transferred to the reserve because of illness. They are exempted from payment of the tax "On bachelors, single citizens and citizens with small families," but for no longer than one year following their transfer to the reserve.

The term of service in the army and navy is accounted in the work record under the condition the ex-serviceman enters work no later than three months after his demobilization date.

To receive the percentage bonus a laborer must have worked, prior to being drafted into the army or navy, under the given ministry or department and in the positions and on the jobs which would make him eligible to receive bonuses or single remunerations. In this case the time of interruption of work is not included in the record qualifying the personnel for receipt of the percentage bonus.

The time served by a citizen in the ranks of the armed forces during World War II is included in the work record entitling him to a

labor wage percentage bonus for the number of years worked provided that the laborer was drafted, mobilized or enlisted for military service while working at an enterprise, institution or organization of a given ministry (or department) and returned to work in an enterprise, institution or organization of the same ministry (or department) or of another ministry (or department) in which bonuses also are paid for the number of years worked, no later than three months after the date of his demobilization, excluding travel time to his permanent residence.

Some enlisted men and noncommissioned officers who have been transferred to the reserve from the Soviet Army are interested in the length of time after which they may receive regular vacation.

Regular vacations are offered on the ordinary bases after 11 months' work at an enterprise or institution.

ROLE AND MISSIONS OF THE NAVY

Voyenno-Morskoy Flot /The Navy/ Moscow, 1959, Chapter II, pages 44-47, Russian bk.

Captain 1st Rank N. A. Nevskiy

The navy is one of the armed forces of the country. Depending upon concrete conditions and tasks of the Soviet Armed Forces in general, and upon the circumstances of the conduct of military action (the direction of operational-strategic attacks, geographic location of theaters of war, etc.), the Navy plays a definite role in the struggle for protection of the interests of our socialist society.

Soviet military science holds that the role and tasks of the navy, like those of the other armed forces, are determined in war by the political goals of war, by the tasks of the armed forces of the state, and by the strategic missions of the navy. However, by studying the history of past wars the specific missions of any navy, more or less characteristic for any given situation, may be determined.

The primary major mission of the navy in war and peace is the protection of the interests of the country on the seas and oceans, and at the coastlines of the state.

Another mission of the navy consists of the support of land forces active in coastal areas, when the navy with its great maneuverability on the sea may act on the flank of the enemy. It must be mentioned that even in the fulfillment of this mission the navy is not relieved of its primary mission. On the contrary, effective assistance to land forces in coastal areas is possible only through accomplishment of the primary mission.

The primary mission always is inherent to the navy, while the secondary mission depends upon the requirements of a concrete situation. However, under definite historic conditions either of these missions may become the main, decisive mission for the entire navy while the other may become an auxiliary mission, of a security nature. The situation may be further complicated by one of these missions being the primary mission of the fleet of one marine theater of war, and the same mission may be of secondary importance to the fleet of another marine theater. It is possible also that the mission of the navy or of individual fleets may change during the course of the war.

During World War II our country fought against a state which had a relatively weakly developed navy. Under these conditions the primary mission of the entire navy in the west was the defense of the flanks of land forces in coastal areas, but the enemy's lack of significant naval forces in the western theaters resulted in an operation consisting of searching out these forces and destruction of their auxiliary vessels. During certain periods of the war, however, even here the struggle for maintenance of lines of communication was transformed from a security, to a primary mission. For example, the main mission of the Northern Fleet in stabilization of the flank of the ground forces was that of ensuring communication for the escort of convoys of allied ships. The main mission of the Black Sea Fleet when our troops were capturing Sevastopol was the destruction of the enemy's ships and troop transports.

The main task of the Pacific Fleet in the East during the entire World War II was the performance of its primary task.

Soviet military science indicates that the means and form of the conduct of war are not always uniform and change primarily as a function of the development of the forces of production, and thus no war is fought exactly the same as the preceeding war. The plan of strategy which was successfully realized in one campaign, as a rule, is ineffective in another. The change in the form and means of conducting war brings after it changes in the organizational structure of the army and navy with respect to the types of armed forces and of branches of the armed forces.

Under modern conditions if war should break out it may encompass all the continents, seas and the oceans, and the space above them. The world ocean occupies a significantly large portion of the earth's surface but has been studied considerably less than dry land, and if we take into account the action of the underwater fleet plus the possibility of the use of new types of weapons and technology the growing role of the navy becomes increasingly clear.

During World War II submarines were not capable of speeds comparable to that of surface ships and could not counteract surface ships while on the surface, nor could they strike at coastal objectives throughout the entire depth of defense. In the future this mission will be accomplished by submarines through the use of rocket weapons.

At the present time the role of naval aviation also has strengthened, with a considerable improvement its tactical-technological data. It may carry out unexpected attacks on the coast from invisable ranges of the Pacific Ocean.

As already has been mentioned, the importance of landing operations is increasing with the general character of modern warfare.

Without the aid of the navy it would be difficult for the army to ensure its coastline from the landing of hostile amphibious forces. The navy is necessary for providing timely warning of the approach of a landing force and for striking this force with the purpose of producing maximum weakening.

Furthermore, it must be remembered that coastal defense is decided not only in the immediate vicinity of the coastline, but primarily upon the high seas in the struggle of the navy against the naval forces of the enemy and in attacking the naval bases and other points of concentration of the enemy forces.

In combined action of naval and land forces the navy is able to move and concentrate its own forces quickly, support the coastal flanks with its fire power, disembark landings in the enemy rear, and by the same action hinder the enemy's naval forces.

A characteristic historical example of similar naval action during World War I is provided by the support of the flank of the Kavkaz army by the Black Sea Fleet (the Anatolia landing operation mentioned earlier), whose gun fire and landing of amphibious forces in the rear of the Turkish army forced the retreat of the latter despite the favorable defense characteristics of the terrain, and enabled the Army of the Caucasus to advance along the sea coast.

During World War II the enemy did not succeed in attacking the flanks of the Soviet fronts resting on the sea shore due to the actions of the Soviet navy. The enemy was unable to make a single landing on our coast, while our navy made more than 100 landings of operational and tactical scale.

The defense of the Moonzund Islands [sic] the Cape of Khanko, and the cities of Tallin, Leningrad, Sevastopol, Odessa and Stalingrad by the Soviet Army were realized through the active support of the Navy.

The navy is very important in ensuring sea and river communications. It is well known that sea and river transportation are the cheapest. They are especially important during time of war, when railroad transportation is loaded down with military transportation tasks. To be able to utilize the waterways even within the limits of one's own coastline, however, it is necessary to protect the freight and troop transports from the surface, undersea and air forces of the enemy, and to conduct

a campaign against mine entanglements. The inland waterways (rivers and lakes) also must be protected from enemy air attacks and from enemy mine emplacements.

The following data may serve as a clear illustration of the importance of transport to individual states during war time. Between September 1939 and April 1945 more than 250 million tons of cargo (not including troop transports) arrived in British ports, including approximately 83 million tons of petroleum and petroleum products, 76 million tons of food and more than 90 million tons of other types of industrial raw materials. During the years of World War II the US alone imported and exported more than 380 million tons of cargo by sea.

Thus a country which borders upon the sea and has a shipping fleet with equipped commercial ports on the coast receives from exploitation of the cheap sea lanes of communication great advantages favoring its economic development and strengthening its defense capabilities.

It is quite natural for each combatant country to attempt to deprive its enemy of these advantages and to save them for itself. Because of this every war between states which border on the sea is accompanied by military action on the seas. Thus it is unnecessary to point out the extremely great importance of the navy in forcing marine obstacles with armed forces.

The great dependence of the majority of capitalist countries upon the sea, the diffusion of military action to many countries, and the appearance of new types of weapons demonstrate the growing role of the navy in modern warfare and the increasing volume of missions accomplished by the navy.

FUNDAMENTALS OF NAVAL ART (OPERATIONS)

Voyenno-Morskoy Flot /The Navy/, Moscow, 1959, Chapter XIII, pages 268-297, Russian bk.

Captain 1st Rank N. A. Nevskiy

Victory in modern warfare is achieved through the combined efforts of all types of armed forces. However, the importance of each type of the armed forces and of the types of troops may vary according to the established goals, the character of the theaters of military action, and the general course of armed conflict. One or another of the armed forces may play a relatively greater or lesser role.

In the general system of military affairs, the basic task of which is the achievement of victory in armed conflict, naval affairs account for an extensive area. Naval affairs constitute the totality of military science, technical and special knowledge and practical methods and experience relating to the preparation for and conduct of armed warfare on the seas. Naval affairs encompass the problems of the structure of the navy, its preparedness for the conduct of military action, the methods of naval action in the resolution of varied military missions, the organizational composition of divisions and sections of the navy, realization of measures of operational, military, material-technical and special types of supply, and many other aspects of the practical activity of the navy and of naval theory.

Naval affairs are closely connected with other branches of military affairs; it has general features characteristic of all types of armed forces regardless of whether military action is conducted on land, in the air or on the sea. However, naval affairs have peculiarities arising from the character of marine theaters of military action and from the nature of the basic types of forces of the navy, primarily surface vessels, submarines and naval aviation.

The most important component part of naval affairs is naval art, which includes the sum total of theoretical propositions and practical means and methods of action of naval forces in the accomplishment of missions of armed warfare, both independently and in coordination with land air forces. /Although naval art is an integral part of military affairs, it is also a type of military art./ Military action in marine theaters is made up of military campaigns, naval operations, battles and combat action. Depending upon the scale of military actions conducted, the quantitative and qualitative composition of the forces taking part in them, and the peculiarities of the forms and means of their armed

conflicts, naval art is divided into strategic utilization of the navy, operational art and naval tactics.

There is close mutual interrelationship between the component parts of naval art. Strategic utilization of the navy is determined by a single military strategy of the state, directing the action of the navy, as a type of armed force, for the attainment of results which will most surely lead to a strategic success. The concept of the strategic utilization of the navy determines all naval operations. Operational art, in its turn, exercises a guiding effect upon naval tactics, requiring it to compose the form and means of action of the navy in naval battles which are most likely to ensure attainment of the operational goals.

The reverse influence consists of the fact that marine tactics, developing under the influence of new types of weapons and technology, enrich the operational art with new methods of utilization of the naval force for accomplishment of operational missions. The development of the operational art of the navy reveals new possibilities for its strategic utilization.

The most important mission of naval art under the present conditions of the stormy growth of technical sciences and industry is the search for, and adaptation of new methods of preparation for and conduct of military action on the seas, utilizing the latest types of naval weapons and military technology, and the development of means of protection from the action of these types of weapons.

Naval Tactics.

Naval tactics encompasses the theory and practice of the preparation and conduct of naval battles and military action. It is the sum total of the means of bringing to bear upon the enemy the action of various types of forces of the navy and of the military application of various types of weapons and military technology. Naval tactics is composed of the tactics of application of naval weapons, the tactics of homogeneous forces and the general tactics of the navy.

A brief survey of several problems of contemporary navigation is necessary for a clear explanation of the fundamentals of naval tactics.

The accomplishment of a sea crossing and fulfillment of military missions require ships to perform joint maneuvers, which the ships accomplish in the appropriate formations. The selection of any particular formation is determined by the necessities of the use of their weapons by the ships, supporting the ships of the formation with the necessary preparedness for repulsion of surprise enemy attacks, conveniences of

piloting the ships and of their maneuverability in battle without hindering each other, and by the military-geographic conditions of the region traversed or in which the military action is conducted.

Depending upon the missions to be accomplished by the ships, the formations are classed as route or battle formations, and depending upon their complexity are classed as simple (ships displaced in a straight line) or complex (ships distributed in several straight lines or broken lines) formations.

The simple formations include the in-trail, frontal, echelon, and bearing formations. These formations are used by units of all classes of ships in the accomplishment of various military missions.

Complex formations generally are composed of two or more simple formations. The complex formations include the "V", complex in-trail, and complex frontal formations. The complex in-trail formation most frequently is used in transport formations in convoys and with landing ships in landing details. The "V" and complex frontal formations are used in minesweeping and in the accomplishment of many other military missions.

When an open sea crossing by large units of ships of various classes is necessary a travel order is developed, the structure of which depends upon the number of ships, their tactical-technical missions, the type of danger from the enemy (air threat, submarine threat, or mine threat) and the visibility conditions. The travel order for all the navies of the world consists, as a rule, of large, protected military ships, transports or landing ships, travelling in one of the simple or complex formations, and the protecting ships, distributed in screening formations or concentrated around the protected ships.

The number of protecting ships and their distribution in the order depends upon the type of threat from the enemy and the degree of danger which the threat poses to the protected ships. The travel orders may be anti-air, anti-submarine, anti-torpedo boat, and anti-mine formations. Under modern conditions the threat of the use of atomic weapons compels the dispersion of ships within the order. According to the foreign press these orders were widely used by US and other fleets during training maneuvers of the naval forces of the North Atlantic bloc.

For protection from enemy air attack the ships in travel order are provided with fighter cover. In addition to protective ships, anti-submarine aircraft are brought in for searching out and destroying enemy submarines.

The carrier-borne travel order used by the US navy and the travel order of the US-British convoys during World War II may be used as examples of the structure of travel orders.

Several units of ships of various classes accomplish transit in travel orders, the composition of which includes one or more basic groups of ships of transports with their protective escort, reconnaisance groups (ships and aircraft), groups of ships and aircraft for fighting submarines, groups of RADAR patrol ships, and a detachment of large surface vessels for repelling the attack of large enemy ships. Depending upon its composition each of these groups sails in its appropriate travel order or in one of the simple or complex formations.

The basic mission of escort ships consists of repelling the attack of submarines, aircraft, and torpedo boats, and destruction of the attacking forces of the enemy. According to necessity these ships also render aid to the escorted large military ships or transports damaged in battle or in transit. Since the sinking by German submarines of the three British heavy cruisers "Abukir," "Cog" and "Cressy" one after the other in the North Sea in the fall of 1914 while attempting to assist each other, the rule has been established in all the navies of the world that in case of threat of submarine attack large ships and transports do not stop to assist other ships. The expediency of this rule was substantiated by experience during World War II.

During sea crossings a 360-degree watch is kept of the air and sea by visual and technical means. In addition, hydroacoustic underwater surveillance is maintained for detecting enemy submarines.

A change in the direction of motion of ships in formation is accomplished by the method of turning "all at once" (all ships turn to a new course at the same time), in succession (each ship arrives at a predetermined point and settles down into a given course), and by the method of wheeling (changing courses and speeds until arriving on the new course). The turning of ships is performed in connection with the necessity of changing course for arriving at a predetermined point and to avoid danger (shallows, cliffs, shoals, or areas in which surface vessels, submarines or mines of the enemy are located). When it is necessary to cross areas infested with submarines the ships employ a zig-zag course, which renders enemy attack difficult. In battle the turning of units of ships is employed to take up a favorable position with respect to the enemy and to evade his attack, collision with torpedoes, shells, bombs and detected mines.

Fundamentals of Tactics of Uniform Naval Forces. Modern naval battle is characterized by the participation of heterogeneous naval forces which strike the enemy in close cooperation with each other, utilizing various

types of weapons for a joint and decisive defeat of the foe. However, even in this type battle every type of force acts in accordance with its tactical capabilities, utilizing its inherent combat qualities and means of action. Because of this the tactics of uniform forces is the basis of the combat capability of the navy, and from it arise the more complex forms and possibilities of action of heterogeneous forces in naval battle and in naval operations.

There are many general features in the means of conducting combat action with the various classes of ships and aircraft, equipped with various types of weapons and combat techniques. The principal among these are an attempt to gain the proximity of the enemy by an undetected, shortest route, to take up an advantageous position and hold it in battle, enabling successful maneuvering for use of weapons and hindering the maneuvering and use of his weapons by the enemy, a struggle to deliver the first broadside salvo (an attempt to anticipate the enemy in the use of weapons), ensuring freedom of maneuver to escape attack, evading the attack of the enemy and hampering the maneuverability of the enemy. Suddenness and variety of means of action, maintaining the capability and speed of movement, ensuring all-round reconnaisance, all types of defense, and utilization of the camouflage characteristics of the action area are of great importance in the tactics of all classes of ships and aircraft. Measures for cutting off or rendering difficult observation by the enemy also have wide applications, such as putting up smoke screens, active and passive confusion of his radar equipment, etc.

Specific peculiarities arising from their various combat missions, armament, armor, speed and other combat qualities, are characteristic of the tactics of various types of naval forces and classes of ships. These peculiarities are described briefly in the following.

The tactics of aircraft carriers in combat with ships or in attacking coastal targets always is based on their action in large units with a powerful escort of cruisers and destroyers. The main escort mission is to ensure antiaircraft and antisubmarine defense for the carrier. In cases in which the aircraft carrier may be threatened by heavy ships of the enemy, for example such as was the case in the military action between the US and Japan in the Pacific Ocean during the 1941-1945 period, heavy cruisers and ships of the line are included in the composition of the carrier units.

According to the experience of World War II when aircraft carriers engage enemy ships they usually remain a distance of 150 to 200 miles (270 to 360 km) from the enemy formation, maneuvering freely to launch and receive its aircraft, striking at the hostile ships and repelling the attacks of aircraft and submarines. This is so because the aircraft carrier must steam at full speed into the wind when launching and receiving

its aircraft and a fairly large region is required for their maneuvering, in which the escort ships of the carrier unit must provide antiaircraft and antisubmarine defense.

In all large sea battles of World War II, especially in the Pacific Ocean, carrier aircraft were basically an attacking force, causing the heaviest losses to the enemy and sometimes, as was the case in the engagement off the Philippine Islands in October 1944, generally decided the outcome of the battle. During such an engagement the aircraft carrier always was located in the depth of the battle order of its forces, far beyond the limits of vision and range of fire of the heavy ships of the enemy.

Only two cases are reliably known when aircraft carriers came under the fire of heavy enemy ships during World War II: the sinking of the British aircraft carrier "Glorious" by the guns of the German ships of the line "Scharnhorst" and "Gneisenau" off the shore of Norway in June 1940, and the withdrawal of US escort carriers under fire of Japanese heavy cruisers off the island of Leyte in October 1944. In both cases the main reasons why the aircraft carriers encountered heavy naval gun fire were poor organization of reconnaissance of the area of action of the carriers, and their lack of cover forces for repelling the attack of large enemy ships.

The experiences of World War II indicate that the basic forces capable of successfully attacking aircraft carrier units are aircraft and submarines. Usually they also can escape these forces through the structure of their travel orders and the organization of defense of aircraft carrier units.

In attacking shore targets (naval bases, ports, air fields, industrial and administrative centers, etc.) the tactics of aircraft carriers basically consist of rapidly and suddenly arriving at the point of launching of their aircraft under cover of darkness or bad weather. After departure of its aircraft to carry out the attack the aircraft carrier proceeds at full speed to another area to confuse the e enemy reconnaissance and to ensure a peaceful landing for its aircraft returning from battle. Cases have been noted in which attacks on shore targets were carried out in various directions by groups of aircraft. Sometimes, in cases of considerable threat from enemy aircraft, the aircraft carriers launched their aircraft from the greatest possible distance from the target and returned to base, and after carrying out the attack the carrier's aircraft landed at their nearby air field.

The tactics of ships of the line and cruisers are determined entirely by the requirements of the most effective utilization of the main caliber guns. In general outline, in naval battle this includes an attempt to assume the most advantageous position, determined by a

favorable relationship of maximum effective range and probability of its shells falling on the enemy. In this the probability of penetrating the armor of the enemy ship is taken into account and measures are taken to reduce the action of the enemy on the tactician's own ship. This is achieved not only through selection of the corresponding range of battle, but also through its course bearing with respect to the enemy, and by maneuvering on a zig-zag course to confuse the enemy's marksmanship.

In a fire fight of heavy ships the struggle for the first salvo, for more rapid conclusion of adjustment of fire and transition to fire for maximum effect, for a high rate of rapid fire and for a high percentage of shells hitting vital portions of the enemy ship (engine and boiler rooms, large-caliber magazine, command posts, etc.) are of special importance.

In a fire fight the ship commander constantly must take into account contradictory requirements. To increase the effectiveness of the gun fire of his own ship it is most advantageous to follow a straight, or regularly changing course at a constant speed, but this would result in the enemy's easy damaging of his ship. In this connection and in view of the high degree of accuracy and great destructive power of heavy gun fire, since as early as the Russo-Japanese War a gun fight between ships of the line and cruisers has devolved into a series of intermittent fire attacks, after which the ships of both sides separate temporarily, then approach each other again, attempting to assume an advantageous position for delivering a crucial blow to the enemy. In many cases ships of the line and cruisers must interrupt their fire on the enemy to evade an attack from aircraft, destroyers and submarines. In addition, the expenditure of shells also must be taken into account, the supply of which on board ship is greatly limited (an average of approximately 100 to 150 rounds per main caliber gun) because it is impossible to restock the exhausted supply during the course of any given battle.

In the sea battles of the past wars ships of the line and cruisers as a rule had an escort of destroyers and coordinated their own actions with their aviation and submarine forces. In addition to the gun fire of heavy ships, intended to destroy the enemy in their attacks, their destroyers provided torpedo attacks and other forces were brought to bear to pin down the maneuvers of the enemy and to break its combat capability.

The rapid development of naval aviation, the increase in its striking power and the great effectiveness of its weapons against ships led to the fact that during World War II gun fights between ships of the line became a rare occurrence. As early as 1943-1944 the great

battles between the Japanese and US navies began to take place without a single shot fired by ships of the line. The outcome of the battles was decided by the attacks of carrier-based aircraft even before the forces of both sides could get close enough to each other for long range gun fire. In the post-war years rocket weapons began to develop rapidly in the navies of all the large countries of the world, which have great maximum effective range, very high probability of impact, and great destructive force. Because of this it is most probable that gun battles of the ships of the line have become the property of naval history, and the presently existing ships will be rearmed with rocket weapons. Nor is their use excluded in the composition of carrier forces for solving the problem of providing antiaircraft cover for aircraft carriers, and in the case mastery of the air has been achieved, for artillery preparation for large-scale landings and for supporting the latter in their operations on the shore.

Gun battles between cruisers apparently still may be encountered in the future, especially in coordination with other forces in action involving sea communications, and in landing, and antilanding operations.

Ships of the line and cruisers were used extensively during World War II for delivering gun fire on shore targets and on enemy troops in the coastal region, especially in supporting the flanks of their own land forces and landing operations. To reduce the threat of air attack the firing of large ships was most often conducted at night. During the daylight hours the ships were provided with fighter cover. The experiences of World War II have shown that without the desired fighter cover the action of large ships near the coastline of the enemy most often ended in loss of the ship due to the action of enemy aircraft (loss of the British ships of the line "Prince of Wales" and "Repulse" on 9 December 1941 due to a Japanese air attack, and many other cases in various naval theaters).

As a rule those targets are indicated for shelling which cannot be destroyed by the firepower of land forces or which require extended fire action in the presence of aviation inadequate for this purpose. The approach of heavy ships to the enemy's coastline usually is performed at night and under conditions of poor visibility, but also may be done during the day in the presence of mastery of the air and strong fighter cover. Minesweepers clear the maneuvering area of the enemy's mines. Anti-submarine and antiaircraft escort is set up around the heavy ships. Ships of the line and cruisers deliver fire on the shore either while under way or from anchor. Depending upon the range of fire, the local topography and conditions of visibility the gun fire is conducted either by area or by correction (from observation aircraft, from artillery observation posts landed on the shore, or directly from the firing ship or from neighboring ships). Having accomplished their set

firing task, the ships gradually move out to sea or return to base to avoid the unnecessary risk connected with their extended presence near the enemy coast.

Under the modern conditions the increase in destructive power and maximum effective range of the fire power of land forces and the attacking force of aviation will lead to a reduction in the role of the artillery fire of heavy ships upon shore targets. It may be considered that in the future the use of naval artillery for these purposes will become increasingly rare and episodal phenomena.

The tactics of destroyers are extremely multifaceted in the character and variety of means of conducting military action.

The artillery skirmishes of destroyers, this universal class of surface vessels, have much in common with the artillery battles of light cruisers: the battle for advantageous position, attempt to destroy the enemy within the shortest possible time, extensive use of maneuvering, smoke screens, confusion of the enemy's Radar to deliver an attack upon the enemy ship and to avoid his attacks, etc. In view of the destroyer's lack of armor it enters into an artillery fight with much larger ships only in case of dire necessity; it utilizes its artillery mainly to ensure its approach in a torpedo attack in coordination with aviation attacks and artillery fire of its own heavy ships. In many cases in which they act in groups, attacking from different directions, destroyers may successfully conduct battle with single cruisers of the enemy, relying upon their high maneuverability and their advantage of high speed.

The most powerful weapon of destroyers in all wars of the first half of the twentieth centurey, including World War II, was the torpedo. Night and day torpedo attacks by destroyers in coordination with the attacks of other forces of the fleet is one of the most powerful means of action upon the enemy and delivering a crucial blow to the enemy on the open sea and in coastal waters.

The torpedo attack approach of destroyers usually is conducted in groups attacking from different directions and under the cover of artillery fire from ships of the line, and cruisers, and in coordination with aviation bombardment and torpedo attacks. To ensure close approach to the enemy extensive use is made of smoke screens, the hours of darkness, poor visibility, and the peculiarities of the battle area which offer concealment (promontories, straits, narrows, islands). Maneuvering in a zig-zag pattern at full speed the destroyers attempt to arrive at a position from which they can launch a torpedo salvo on the bow cruising course of the enemy ship. After launching torpedoes from one or all torpedo tubes they double back and, taking cover under

smoke screens, recover from the attack for the subsequent regrouping in battle. Through daring and determined action of the personnel, and through their persistent and correct maneuvering, destroyers frequently achieve significant successes, destroying or heavily damaging ships of the line, cruisers, and ships of other classes.

Under modern conditions destroyers increasing are becoming ships of antiaircraft and antisubmarine defense. It is known, for example, that one torpedo battery has been removed from each destroyer, which was replaced with greater antiaircraft armament. All modern destroyers are equipped with the most modern hydroaccoustic apparatus, antisubmarine rocket depth bomb launchers, and depth bombs.

Destroyers are active within smoke screens and defense rings within the travel order unit composition, establish antiaircraft and antisubmarine defense of large ships, convoys and landing detachments, utilizing for this purpose Radar, hydroaccoustic and visual observation, and repel attempts of the enemy to penetrate to the escorted ships. In addition, destroyers often are employed for patrol duty (Radar or anti-submarine patrol) for units in transit and off the coast, and also are used for reconnaissance on the open sea.

Acting within hunter-killer groups, independently and in coordination with shore or carrier aircraft, destroyers survey extensive areas, conducting search for, and destruction of enemy submarines. When receiving information on the detection of a submarine the destroyers pinpoint its location with their available hydroaccoustic gear, its depth, and direction, proceed at full speed to intersect the course of the submarine, and attack it with salvos of rocket-assisted bomb throwers or drop depth charges. To increase the probability of the explosives' hitting the submarine, the depth charges are set for various depths. The attacks are repeated, as a rule, until signs are observed that the submarine has been destroyed (large amounts of debris, fuel, etc. floating up to the surface), or until the escorted ships leave the area of possible attack.

During war time destroyers also are used in shelling the enemy coast during landing operations. The objects usually indicated as targets for the guns of destroyers are weakly defended targets (concentrations of troops and equipment, light engineering equipment, etc.). The action of destroyers is swift and unexpected, but their shelling of coastal targets is similar to that of other classes of ships.

When on patrol duty along their own shores in the region of naval bases destroyers strive to destroy small groups of enemy ships with gun fire and torpedo attack, or to keep the major enemy forces from arriving at the scene of the battle.

The tactics of patrol, and antisubmarine boats have much in common with the tactics of destroyers.

The tactics of torpedo boats are based upon their action solely within the structure of formations attacking military ships and transports of the enemy, both independently and in coordination with aircraft and with larger ships. Their powerful torpedo weapons, high speed, high maneuverability and small size make torpedo boats very dangerous in attacking near-by naval communication lines of the enemy, in attacking the enemy's landing detachments, and in many other cases in destroying large warships of the enemy. Nighttime, and conditions of poor visibility are the most advantageous for the action of torpedo boats, although there were many cases during World War II in which successful action was carried out by torpedo boats during the day, under good visibility conditions.

Torpedo boats are most efficiently used in coordination with other naval forces, which with their fire and maneuvers tie down the freedom of movement of the enemy ships to ensure the success of the attack of the torpedo boats.

When a group of torpedo boats is conducting an attack on the enemy from different directions under the cover of smoke screens and the fire of their own heavy ships, they approach the enemy ships while maneuvering at full speed (80 to 90 km/hr) on zig-zag courses to reduce the effectiveness of the enemy's fire. Maneuvering along the coastline, between islands, rocks, etc., is used extensively to ensure surprise attacks. Part of the torpedo boats attack the enemy escort vessels, ensuring penetration of their main forces to the enemy's heavy ships, transports or landing ships. Arriving at the torpedo salvo point, the torpedo boats launch their torpedoes and sharply turn aside (on a reverse course), covering themselves with smoke screens, and leave the zone of active enemy gun fire by the shortest route.

Because of the limited number of torpedoes on board (2 to 4), torpedo boat units usually conduct one, or rarely two, attacks in battle.

In addition to conducting attacks in sea battle, torpedo boats are used extensively in landing and anti-landing operations, for patrol service, and for many other missions.

Submarine tactics. The experience of two world wars has shown that submarines, together with aircraft, constitute a dangerous force, able to accomplish very great missions in battle with commercial navigation and with the combat ships of the enemy. At the present time some submarines of many large navies of the world are armed with long-range jet and rocket weapons, enabling the submarine to carry out attacks upon land targets of the enemy located at a considerable distance from the

shore line. The successful adaptation of atomic engines and improvement of the hydrodynamic qualities of the hulls of submarines led to a considerable increase in their autonomy, and speed, and opens before them new tactical possibilities.

In the accomplishment of missions submarines may act singly or in groups. During World War II group action of submarines in coordination with reconnaissance and attack aircraft was most effective in carrying out attacks on enemy shipping on the seas. Lone submarines usually were used in carrying out missions of reconnaissance of the approaches to bases and ports of the enemy, of the entrance, narrows and exits of channels, in laying small mine fields, in patrol duties, and in many other instances.

Depending upon the missions to be accomplished and upon the prevailing conditions, in actions against transports and combat ships submarines either may be located in a strictly determined point (a small area of the sea), or may cruise through great areas for the purpose of discovering and intercepting ships and transports of the enemy. In the latter case the movements of the submarines may be conducted either at the initiative of their commanders, receiving data from air and other types of reconnaissance ("free hunt"), or upon the instructions of a higher command (guiding to the enemy). In both cases the mission boils down to leading the submarine to an area from which, taking into account its speed and that of the enemy, it may carry out a torpedo attack, utilizing visual observation through the periscope or utilizing the readings of hydroacoustic instruments.

Under actual conditions the course of submarine attacks are very complex. The submarine commander must take into account unexpected maneuvers and changes in speed of the enemy, its antisubmarine maneuvers, and the distribution and actions of the enemy escort forces in maneuvering his submarine at various speeds, courses and depths. The smallest error in the actions of the commander and complement of the submarine may lead to breaking off of the attack or subjecting submarine to attack by the enemy antisubmarine defense. The recovery of a submarine after an attack is especially comples, and as a rule is accomplished amid explosions of the enemy's depth charges. Often the undertaking of the submarine for many hours, and sometimes for several days, is devoted to evading pursuit by ships and aircraft, and its personnel must struggle to ensure the seaworthiness of the submarine in complete darkness because the lighting system may have been rendered unserviceable. In many cases the submarine lies on the bottom and for a long time shuts off all machinery and instruments, in order to give the enemy the impression the submarine has been destroyed or to cause complete loss of contact with the submarine.

In conducting group attacks each submarine maneuvers independently in order to launch its torpedoes, after which they withdraw to a previously established assembly area for regrouping of forces for the next attack.

Mine laying by submarines is accomplished by various methods. In many cases, especially in mining straits, narrows, exits from bases and ports of the enemy, and channels known to be used by enemy ships, submarine mines are laid at points in accordance with previously established plans of action. It may occur, however, that a submarine mine layer may conduct its own reconnaissance in a definite area, and its commander independently arrives at the decision to lay mines at certain points of an area, in a channel previously swept by the enemy, or directly in the course of a large formation of enemy ships.

The ability of submarines to remain unobserved in a definite area for a very long period of time and to conduct observation makes the submarine a very valuable force in the reconnaissance of enemy bases, ports and areas of movement. Observing and photographing through the periscope the coast and targets of the enemy, submarines transmit extremely valuable information to headquarters via radio, enabling discovery of the organization of the enemy's defenses, system of armament of a theater, the periodicity of movements of hostile forces in this region, etc.

In addition, submarines also may be utilized for transporting and landing on the enemy shore small reconnaissance and diversionary landing parties; approaching the shore under water, the landing party is disembarked unobserved at night or under conditions of poor visibility, and the submarine again recovers the landing party after the mission is accomplished. Submarines find extensive use as check points for aircraft in action over the sea, and for rescuing the crews of aircraft downed in regions in which the enemy has weak antisubmarine defense.

During the post-war years powerful Radar gear appeared among the equipment of some submarines. This creates the possibility of effectively using submarines for conducting patrol duties along the approaches to its shores for the purpose of warning of the sudden appearance of enemy aircraft and ships. Submarines also are armed with special hydroacoustic equipment and homing torpedoes for searching out and destroying enemy submarines.

As early as World War I transport submarines were built for ferrying personnel and cargo. In particular, for some time these submarines maintained communications between Germany and the US, supplying Germany with strategic materials. During World War II submarines were utilized for supplying personnel, ammunition, weapons, food and fuel to besieged garrisions, and for the evacuation of the sick and wounded.

Several transport submarines completed the trip between Japan and Germany without entering intermediate ports; although the role of these runs in the course of World War II was negligible, nevertheless they indicate the possibilities of an underwater transport fleet. It must be considered that in the future transport submarines will find very extensive application for various purposes under the complex conditions of hostile circumstances.

In previous wars submarines frequently used their deck guns from the surface for destroying transports sailing without escort. Successful artillery encounters of submarines with small combat ships and aircraft of the enemy also are known. In many cases submarines shelled shore installations of the enemy: lighthouses, railroad tracks, small settlements, etc. In view of the growth of the strength and means of antisubmarine defense, and the low effectiveness of fire, the small number of guns of submarines (usually one or two small or medium caliber guns per submarine), and the tendency to remove guns to increase streamlining and speed of the boats, it must be considered that in the future submarines will carry no artillery.

However, the threat to surface vessels and to coastal targets from submarines is increasing considerably through their use of rocket weapons.

In carrying out sea action submarines may act independently or in coordination with other naval forces. Cooperation between submarines and aircraft is especially effective, in which the great maneuverability of the aircraft, the power of their bomb attacks, ability to conduct reconnaissance in extensive areas within a short time, and other valuable combat characteristics combine with the positive properties of submarines (ability to remain undetected at sea for long periods of time, powerful torpedo attacks, etc.), and compensate their weak points (silent running of battery-powered submarines, inadequate capability to combat strong antisubmarine defense, etc.).

In joint actions of surface vessels and submarines, in view of the difficulty of mutual identification in battle, their attacks on the enemy usually are carried out in different areas.

The modern trend of development of submarines leads to an increase in the number of combat missions which they may perform, to an increase in their attacking power, and to further complexity of their means of conducting combat action.

Coast artillery tactics. The principal tactical methods of coast artillery consist of delivering strong artillery attacks upon enemy ships approaching the shore for the purpose of shelling or for disembarking landing forces, and for attacking our ships. In mobile

coast artillery the maneuver of redeployment of forces in a new direction frequently is used, and maneuvering also is used to escape hits from superior naval artillery and aircraft of the enemy.

Coast artillery fulfills the important missions of providing fire support of the flank of land forces in action on the shore. In many cases coast artillery may take action within the limits of the maximum effective range of its weapons, breaking the marine transportation of the enemy and damaging the movement of its combat ships.

Naval aviation tactics are described in the foregoing, under Chapter IX.

The means and methods of action of naval forces reviewed above relate to the field of tactics of uniform forces. Modern naval battles are characterized by participation in them of various types of forces, by their coordination and by their joint accomplishment of complex combat missions. For the attainment of success in naval battles it is necessary to utilize every type of naval force in accordance with its tactical possibilities and the peculiarities of its means of action, but this should be accomplished in such a way that the attacking power of one type of force shall be merged with the attacks of other types of forces in order that the weak points of each shall be compensated by the positive combat qualities of other types of forces.

In contrast to the tactics of uniform forces, the tactics of heterogeneous forces are more complex and constitute a higher level of naval art. The totality of the appurtenant practical means and methods of the conduct of battle and of theoretical knowledge bears the name of general naval tactics.

Naval battles of heterogeneous naval forces are distinguished by the large variety of the character of missions to be accomplished, the composition of the participating forces, and by the circumstances in the battle area. The most frequently encountered diversities of naval battle are: battle at sea between formations of ships, battle for disembarkation of a landing force, battle for repelling disembarkation of a landing force of the enemy, forcing mine-artillery positions, and defense of mine-artillery positions. In addition, the field of general naval tactics also includes the establishment of mine obstacles, organization of patrol with the participation of heterogeneous naval forces, defense of naval bases, and organization of the defense of formations of heterogeneous naval forces in transit and at anchor.

Battle at sea with formations of enemy ships and aircraft may be offensive or defensive. In many cases an encounter battle may arise as a variety of offensive battle. According to conditions of visibility,

battle at sea may be divided into battle under good and poor conditions of visibility (at night and in fog), and according to the character of the battle area may be divided into battle at sea and in coastal waters, either their own or the enemy's.

Modern offensive battle at sea may be conducted for the purpose of destruction of units of enemy ships, his convoys or landing detachments. Aircraft, submarines and surface vessels participate in battle. During the past war the basic idea underlying the conduct of such battles was to reduce the combat capability of the enemy, and remove his possibilities of free maneuvering, through the action of aircraft, high speed ships and submarines, and then destroy the dangerous vessels through the heaviest possible attacks of bombardment and torpedo aircraft and heavy guns of ships of the line and cruisers.

The destruction of convoys in transit and on the ocean was conducted mainly through attacks by submarines and aircraft, but when near the home shore torpedo boats also were called upon for the accomplishment of these missions. Heavy surface ships were active in the destruction of convoys mainly at the beginning of World War II (raider activity of German ships of the line and cruisers in the Atlantic, etc.). Wartime experience revealed the inadvisability of the use of heavy surface ships with artillery armament, and in approximately 1942 submarines and aircraft became the main forces for the destruction of enemy convoys at sea.

Defensive battle at sea usually arose in the case of an encounter with superior enemy forces or in defense of one's own convoys and damaged combat vessels in transit at sea. The action in defensive battle consisted of utilization of one's aircraft, submarines and destroyers for conducting counterattacks on the enemy to force him to withdraw from the offensive and to withdraw his major forces or escorted targets (convoy, damaged ships) from under their attacks. With favorable developments, if the enemy's losses led to a change in the relationship of forces in the use of the defense, the defensive battle was transformed into an offensive battle for the purpose of complete destruction of the units of threatening ships.

In connection with the appearance of Radar and other technical means of observation during World War II, the means and methods for conducting battle at sea during the night and under conditions of poor visibility underwent great development. The tactics of battle at sea at night greatly resembles the methods of battle action under good visibility conditions. In the future night action of naval forces apparently will acquire still greater importance.

Operational Naval Art.

The changes in the character of battle action at sea, which took place during the first decades of the twentieth century under the influence of the increasing complexity of the composition of navies in connection with the appearance of new types of naval weapons and technology, led to the establishment of a new branch of naval art, that of operational naval art.

The selection of operational art as a component part of the art of warfare is an achievement of Soviet military scientific thought, conceived on the basis of drawing inferences from the experiences of World War I and the civil war, and in the third decade of the present century, to develop an orderly theory from the point of view of dialectic materialism, and to develop practical methods for the preparation for, and the conduct of military operations, including operations of the navy. During World War II our Soviet operational art was enriched with new experience, was speeded up, and strengthened. The Soviet Armed Forces, conducting operations on land, on the sea and in the air, knew how to destroy completely the armed forces of Fascist Germany which were threatening the freedom and independence of our country.

In the armies and navies of the capitalist states operational art still has not been separated as an independent branch of military and naval art. As used by those countries the term "operations" has an extremely general and diffuse meaning. As used by us, operations includes not only military action on a strategic or tactical scale, but also administrative and training measures in the training of troops (construction of bases, instruction of troops, etc.).

Under contemporary treatment, naval operations are taken to include the totality of battles, combat and security actions of one or several operational units of the navy, conducted according to a single concept and plan independently or jointly with operational unities and commands of other types of armed forces and aimed at the attainment of a single operational or strategic goal in a naval theater. An operation is military action on a large scale. The system of an operation includes, as a rule, several large battles with the resisting groupings of the enemy, various types of combat action (laying mine obstacles, minesweeping, etc.) and security measures (reconnaissance, ensuring all types of defense in the operations area, material-technical, engineering, emergency-rescue, navigation-hydrographic, and other types of security).

From the experience of past wars and from the trends in military training of the navies of various countries it is clear that under contemporary conditions various kinds of offensive and defensive naval operations may be conducted.

Offensive naval operations include, for example, the operations for destruction of fleet forces at sea and in bases, such as the British naval operation for the destruction of the German ship of the line "Bismarck" in May 1940, and the operations of the Japanese aviation command against the US fleet in Pearl Harbor in December 1941.

It is known that during the past war landing operations were conducted for the purpose of opening a new front of combat in terrain held by the enemy (Normandy landing opeation in 1944), for aiding land forces in breaking strong shore defenses of the enemy (Novorossiysk landing operation in 1943, the British-USA landings in Italy in 1943, etc.), for taking large islands (the operation of Soviet armed forces in liberation of the Moonzund Islands [sic] in 1944, the British-USA landing operation on the island of Sicily in 1943, and the USA landing operations on the islands of the Pacific Ocean).

During World War I and especially during World War II many offensive operations were conducted against the marine lines of communication of the enemy. The most successful were the operations of submarines against commercial shipping. During World War II submarines sank more than 14.5 million tons of shipping, which consitituted 69 percent of all shipping losses during the war.

Offensive operations also include operations for the destruction of naval bases, shipping ports and important coastal targets of the enemy. Such operations include the operations of the US aviation command against the Japanese base of Guam in 1944, the operations of the US fleet in the destruction of industrial targets on the Japanese coast in 1945, and others. It is indicated in the foreign press that under contemporary conditions the capabilities of the navy for conducting submarine operations have grown greatly in connection with the development of long range rocket weapons. In the exercises of the North Atlantic Treaty Organization naval forces considerable emphasis was placed on the training of air attack units and of submarine with rocket weapons, for carrying out attacks on coastal targets.

In many cases other types of large naval actions also may assume the character of operations, such as laying large mine obstacles in enemy waters by various types of naval forces, as was done in the mining of the Sea of Japan in 1944 by US aircraft.

In an unfavorable balance of power, when the enemy has the initiative, defensive naval operations may be conducted, which include operations for the defense of sea communications and anti-landing operations.

During World War II a large number of operations for the protection of their sea communications were conducted by the British and US fleets in the Atlantic Ocean.

Sea operations are divided into independent, and joint operations, depending upon the composition of the participating forces and upon the importance of the operation. Joint operations, or according to foreign terminology combined operations, may be, for example, landing and anti-landing operations. In joint operations the final accomplishment of the main mission is achieved by the joint forces of unities and commands of various types of armed forces, with each of them conducting the combat action peculiar to them according to a single concept and plan.

Landing operations and anti-landing operations, as a rule, belong to joint naval operations. /Small scale landing and anti-landing operations may be conducted independently by the navy, without involvement of land troops, whose role in this case is taken by naval infantry units, and coast artillery./ In these operations there is very close coordination between the navy and other types of armed forces. Depending upon the mission to be accomplished and upon the forces involved, these operations may be of tactical, operational and strategic scale. Regardless of the scale of the operations they have general characteristics which differ from other actions of the navy and armed forces.

Landing operations. Foreign specialists devide landing operations into three types:

Operations for the purpose of taking an extensive area of the enemy shoreline;

Operations for taking an island or an area which are necessary as bases of operations for subsequent actions;

Actions (raids) for the purpose of the destruction of any important enemy target, with later evacuation of the landing force after fulfillment of the mission.

The forces participating in a landing operation, and the landing itself, are determined by the missions to be accomplished by the landing, and by the possible resistance of the enemy.

A landing force is taken to mean troops intended for debarking upon an area which is held by the enemy. It may be naval, air or combined.

An air landing operation, in turn, may be a parachute, landing or parachute-landing operation. In the majority of cases in modern warfare combined landings are used.

The naval forces participating in a landing operation are determined by the circumstances of the naval theater and by the goal of the operation. As a rule, they must include cover forces, local security forces, landing disembarkation detachments.

All operations consist of the following stages: preparation, boarding of troops, sea crossing, battle for landing, landing and development of victory on the shore.

The control of the landing operation is organized in a similar form. The commander of the entire landing operation, usually the commander of one of the types of armed forces participating in the operation (performing the main mission in the landing) is appointed, and his deputies, commanders of the other types of forces, are appointed. As a rule the disembarkation commander is the commander of the ships performing the disembarkation, and a landing commander is appointed.

During the embarkation, sea crossing, battle for disembarkation and disembarkation, the landing commander is subordinate to the naval commander. From the moment of the beginning of the battle for disembarkation the landing commander in land actions is directly subordinate to the commander of the operation, and in actions concerning control of the undisembarked units or units in transit he remains subordinate to the naval command.

The landing disembarkation detachment includes detachments of landing ships, detachments of rocket-artillery support ships, and security ships of the water in the region of the disembarkation points.

The landing forces may approach the disembarkation point in echelons. The leading landing detachment detaches itself from the first echelon, and groups of the first landing waves, consisting of very well prepared members of the landing force, are formed in the leading detachment.

The ability of divisional and larger units, regiments, subdivisions and even of individual members of the landing force to act independently is of great importance in a landing operation. Because of this trained regiments or individual battalions with command staff and command personnel who have traits of initiative and decision, must be selected for the landing. All the weapons and material-technical supplies of a unit must sail on the same vessel with the personnel for which they are intended.

In the post-war years special attention was devoted to the development of the methods of landing operations of various scales in the US Navy, where landing operations are considered one of the most important types of military action. Because of this it is not without interest to review several peculiarities of the preparation and conduct of landing action according to material published in the US press.

The composition of the first landing echelon includes divisions and regiments of marines, the mission of which is to take a beachhead on the enemy shore and ensure the disembarkation of the following echelons, usually consisting of combined arms divisions and regiments of the US Army.

The training of landing regiments for the disembarkation and accomplishment of the mission on the shore is conducted in a region with military topography similar to that of the region intended for the landing disembarkation. The landing training area is fitted out with defense installations similar to those which have been identified through reconnaisance to be on the enemy shore. For the purpose of maintaining the secrecy of the training this region is isolated from the surrounding localities, the landing personnel are prohibited contact with the local population, correspondence is limited, and many other secrecy measures are taken.

After training in the indicated region for action on the shore and training in boarding and disembarking, the landing divisions and regiments board transports, landing ships and landing-disembarkation vehicles. Depending upon the distance to the disembarkation points the landing forces are loaded either on large landing transports and landing ships for crossing the ocean, or are loaded directly upon the landing-disembarkation vehicles for short sea crossings. According to the latest data of the foreign press, part of the landing troops intended for disembarkation upon the enemy shore by helicopters may be loaded on helicopter-carrying aircraft carriers. Indications frequently may be encountered in US newspapers and military journals to the effect that due to the development of the atomic weapon and other means of mass destruction and loading of the landing force upon transport vehicles must be decentralized and distributed among many ports, and sometimes may be required to be conducted in bays and coves with unequipped shorelines.

The sea crossing of a landing force usually is conducted in several landing detachments, the organization of which ensures antisubmarine and antiaircraft defense of the transports and landing ships. The air field network of the defending enemy is destroyed, and his system of communications with the coast is destroyed for great distances from the disembarkation region. To safeguard the landing from the mine weapons of the enemy the disembarkation region is swept by mine sweeper units acting under the cover of air support and of heavy ships.

Prior to disembarkation of the landing upon the shore landing preparation fire is carried out. Aircraft with bomb attacks, and heavy ships with their gun fire destroy the defense installations, life force and combat technology of the enemy on the shore, destroy his system of control of troops, and destroy the paths of movement of anti-landing

defense reserves. The landing preparation fire may last from one to several hours. The US foresees the use of atomic weapons and other new means of mass destruction for preparation for landing disembarkation.

When the landing detachments arrive in the landing region the transports stop at a distance of 10-15 km from the shore, and the trans-loading of troops into landing-disembarkation barges begins. The landing vessels with marines and tanks head for the shore by the chortest route, attempting in the shortest possible time to disembark the first waves for taking the shore line and to ensure the disembarkation of the first landing echelon. The first echelon must take and hold the beachhead, ensuring deployment of the main forces of the landing for further action on the shore. The landing and action of the first and successive landing echelons on the shore must be continually supported by gun fire from the ships and by air attacks.

Somewhat before the landing of the first waves of the naval landing or simultaneously with them the US makes air landings for taking the air fields and important defense positions of the enemy on the shore. In this attack part of the landing force disembarks from helicopter-carrying aircraft carriers at various points along the coast.

The US considers that large numbers of amphibious and ordinary tanks and armored carriers must be disembarked in the first landing echelons.

Many foreign military specialists consider that under the contemporary conditions of use of new combat weapons landing disembarkations will be conducted on a much broader front than before. According to data of the foreign press the average front width may be 4-6 km for an infantry regiment, 8-12 km for a division, and 25-30 km for an army corps.

The USA attempts to increase as rapidly as possible the number of landed troops, technology, equipment and supplies for the landing force, and because of this the landing region will be an area with a considerable concentration of troops, cargo and transport equipment, especially during the first days following the beginning of the landing. The sea communications of the landing constitute an object of special concern, and the defense and support of sea communications are attributed great importance.

Anti-landing operations. The main difficulty of an anti-landing operation is that its planning depends wholly upon the level and quality of reconnaisance. An enemy landing may be detected at various stages, from the approach to the disembarkation point, to the disembarkation. Only when the intentions of the enemy are discovered in time may an effective anti-landing operation be organized. The scale of an anti-landing operation depends upon the character of the landing operation conducted by the enemy.

It may be said that the success of an anti-landing operation depends to a great degree upon the advance organization of anti-landing defense.

Aircraft constitute an effective force for combatting landings. The action of aircraft is characterized by the succession of all stages of anti-landing operations. They may destroy the enemy troops in the approaches to the landing points, may attack the ships and troops at these points, destroy the ships during the sea crossing, counteract the disembarkation and may secure the battle with the disembarked troops. If the enemy succeeds in landing troops, then through torpedo-bomb attacks the aircraft must destroy their communications, denying them the possibility of developing the successful delivery of reinforcements with troops, technology and supplies. In repelling a landing the airforce must achieve mastery of the air and retain it, using the massing of aircraft for this purpose because the enemy disembarking a landing force also will attempt to control the same air, concentrating a large number of aircraft in one place.

In an anti-landing operation the ships of the navy, in coordination with the airforce, destroy fulfillment of the intent of the naval forces of the enemy, engage the covering forces, and fire the landing ships. The surface vessels and submarines, with the aid of air cover, may completely cut the sea communications of the enemy, which will considerably facilitate the land army's battle for destruction of the enemy.

Under modern circumstances the coast artillery must have rocket-powered guided missiles, which considerably expand its possibility of completely fulfilling many functions which earlier were entrusted to the air force. Its role is great in repelling a landing during the battle for disembarkation phase. A shortcoming of the coast artillery is that it cannot always control the entire shore, and the enemy will endeavor to make a landing exactly at the sections inaccessible to the coast artillery.

Land forces repel a landing by arriving at the shore during the disembarkation and after disembarkation, if the enemy has succeeded in getting a foothold on the shore. As is clear from the foregoing, the land forces commander must foresee combat not only directly at the seashore, but depending upon the type of landing (strategic, operational or tactical), throughout the entire strategic, operational or tactical depth of defense, because in modern warfare air landings usually are made simultaneously with naval landings, and attacks from the sea may be made for great distances from the shoreline.

Side by side with the development of the art and technology of landing operations in the contemporary status of armed forces and their weapons, the possibilities of anti-landing defense of the coast also

have increased. With expert conduct of reconnaisance a landing may be detected at its concentration and embarkation points and in the sea crossing, and may be destroyed by powerful air attacks and naval forces. In repelling a landing the defender, relying upon the strength of his air force, high mobile tank groups and the latest long range means of firepower, may effect decisive destruction of the landing and throw it into the sea.

** * **

The decisiveness of actions, and the attempt for complete destruction of the opposite groups of the enemy are characteristic of modern naval operations. An increased destructive power of naval weapons, and the massive participation in naval operations of various forces and devices of the navy create the possibility of attainment of the established operational goals. For this purpose the overwhelming majority of forces concentrate their major forces in the decisive direction. Measures are taken for multifoldly providing forces for attack upon the enemy. The control of an operation, consisting of establishing the missions and organization of coordination, is greatly centralized. At the same time the commanders of divisions and regiments participating in an operation may take the initiative in the selection of the means of accomplishment of the missions which have been established for them, and sometimes also may select the targets and regions for their attacks.

The basic achievement of success in modern naval operations consists of close coordination of all branches of armed forces, branches of troops and naval forces. The coordination of forces in an operation is organized by the operational chief who makes decisions concerning the conduct of the operation, and in individual attacks upon the enemy is organized by the basic unit commander. The achievement of coordination requires deep knowledge of combat devices, the possibilities and characteristic methods of action of each branch of forces, strict fulfillment of the plan of operation, supplying support in battle, and precise mutual information on changes in the situation, and on the actions of one's own, and the enemy's forces.

As has been shown by the experience of previous wars, the navy in coordination with other branches of armed forces may accomplish great strategic missions during time of war.

The resolution of these tasks is accomplished through the conduct of many naval operations, the character and sequence of which depend upon the relationship of forces of the combatant parties, the peculiarities of the theater of hostilities, and many other conditions of the circumstances of war. An extremely great role in this is played also by the development of military actions on land, the course of the

air war, and the possibility of the organization of one or another type of strategic and operational coordination of the navy with other branches of the armed forces.

The problems of the use of the navy in war in general, the organization of its coordination with other branches of the armed forces during the course of war, and the control of fleets in various theaters come under the field of the strategic utilization of the navy. This also encompasses the problems of multilateral security of naval activity. The strategic utilization of the navy comes under the sphere of authority of the military high command of armed forces, and is realized on the basis of a single military strategy of the state in the interests of attainment of the aim of the war.

** * **

In the post-war years our art of war, including also naval war, is developing on the basis of a new technology, and equipment, which the Soviet people are completely supplying to their Armed Forces. As has been reported repeatedly in the newspapers, in the military preparation of our land forces, aviation and navy in 1957 the latest types of modern weapons were used, including atomic and rocket weapons. Our country was the first in the world to create and adjust series production of intercontinental ballistic rockets, the creation of which brings a radical change in the means of conduct of military actions. Mastering new methods of armed warfare and new means of preparation for, and conduct of military action, the Soviet Armed Forces are persistently increasing their preparedness for the protection of the achievements of socialism from the encroachments of any aggressor.

FIGURE APPENDIX

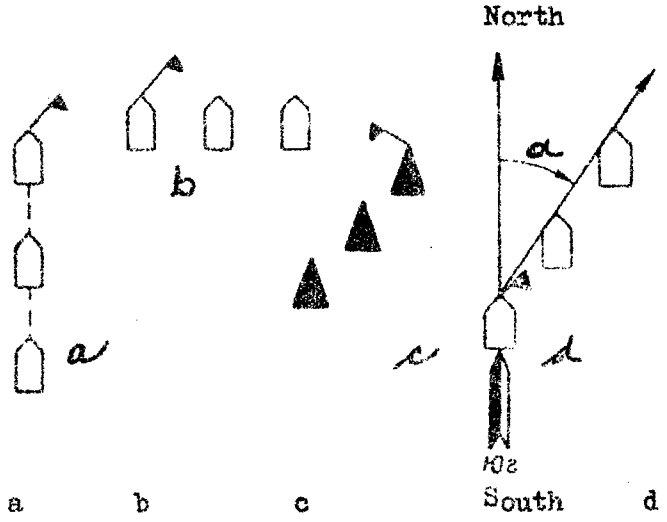

Figure 105. Simple formations.
a. Cruisers in line formation; b. Frontal formation; c. Destroyers in echelon formation; d. Cruisers in bearing formation (α - bearing of formation).

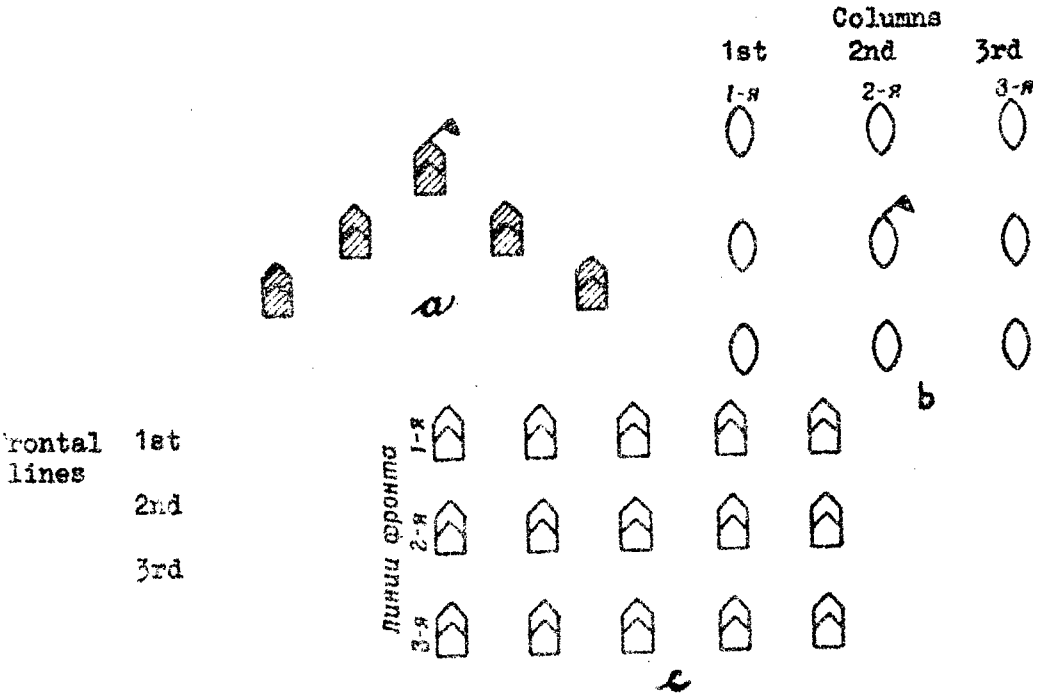

Figure 106. Complex formations.
a. Patrol boats in V formation; b. Transports in complex line formation; c. Mine sweepers in complex frontal formation.

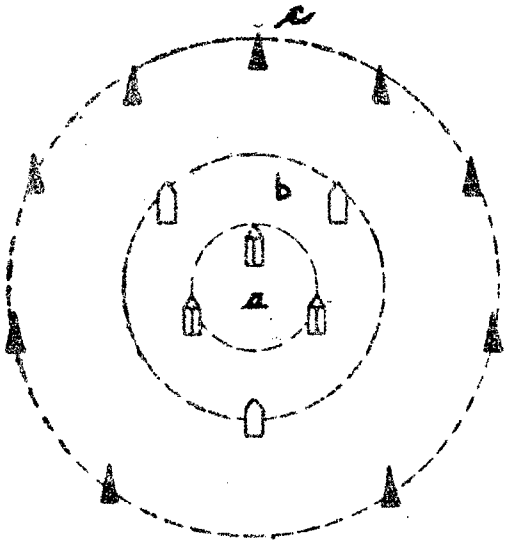

Figure 107. Ring travel order of an aircraft carrier unit.
a. Aircraft Carriers; b. Cruisers; c. Destroyers in concentric escort.

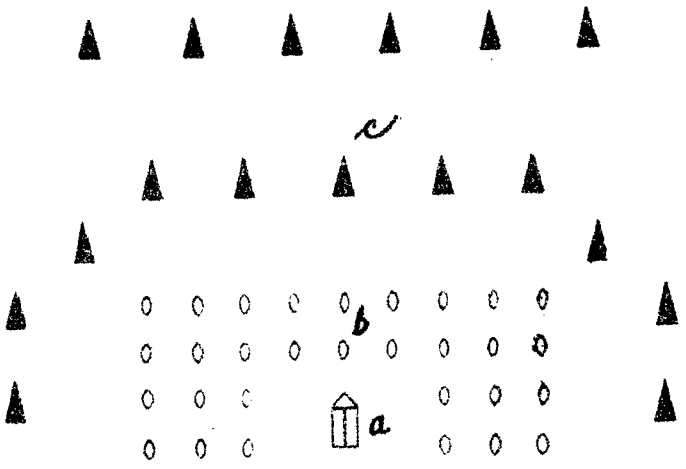

Figure 108. Travel order of an ocean convoy.
a. Aircraft carrier; b. Transports in columns; c. Destroyers in screen escort.

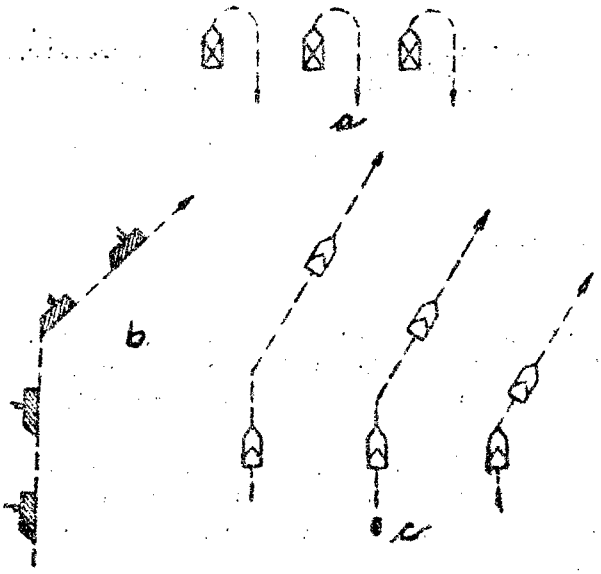

Figure 109. Methods of turning ships in formations.
a. Turn of patrol vessels "all at once" to a reverse course;
b. Successive turn of submarines; c. Turn of mine sweepers by the wheel method.

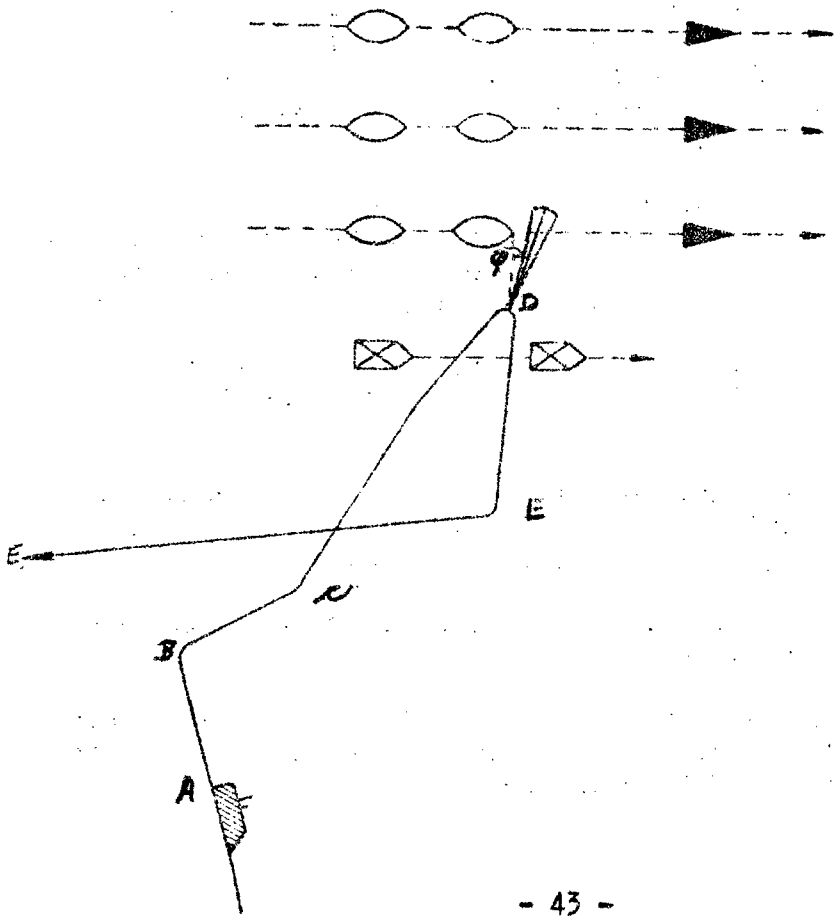

Figure 110. Submarine attack of transport in convoy.
A. Detection of convoy;
AB. Clarification of direction of movement of enemy;
BC. Determination of course and speed of convoy;
CD. Egress to point of torpedo salvo;
D. Launching of torpedoes;
φ. Angle of lead;
DEF. Recovery of submarine after attack.

GENERAL PRINCIPLES OF COORDINATION OF THE FLEET WITH THE ARMY AND AIR FORCE

Captain 1st Rank N. A. Nevskiy

Voyenno-Morskoy Flot
/The Navy/,
Moscow, 1959,
Chapter XIV, Pages 298-302,
Russian bk

Modern warfare is waged on large expanses of land, sea and in the air, and because of this all branches of armed forces must act in tactical, operational and strategic coordination with each other.

The experience of the Great Patriotic, and the Second World Wars, and the events of the post-war years completely substantiated the fact that the coordination of land forces with air and naval forces is the basis of modern warfare.

Based upon the preeminence of the socialist structure and upon the policy of the Communist Party, Soviet military science has placed at the basis of the structure, development and utilization of the army, air force and navy the principle of their inviolable organizational unity in the system of the armed forces of our state. As early as April 1918, in documents establishing the tasks of all organs in the matter of the defense of the country, V. I. Lenin emphasized the necessity of simultaneous and coordinated solution of all problems relating to the army and navy.

Multifold study of the experience of previous wars and well grounded scientific foresight has enabled our party and the Soviet Government to ensure the harmonious development of armed forces and, in particular, the correct determination of the place and missions of the fleet.

The organization of coordination of all types and branches of armed forces is one of the basic principles of Soviet military and naval art.

Historical experience indicates that in the course of combat action our army and navy constantly has perfected the art of coordination, enriching the theory and practice of military affairs.

During time of war the navy, as a rule, is in strategic coordination with the other armed forces.

Instances of purely tactical coordination of naval and land units frequently are encountered, but the most complete coordination appears in simultaneous operations of the army and navy.

Simultaneous operations include operations of an operational or strategic scale in which front troops (army) act together with fleets according to a single plan and under a single commander, and in which the basic operational (or strategic) mission is accomplished by the joint forces of the navy and land forces on the basis of their coordinated action.

The necessity of conducting joint operations is occasioned by specific conditions of the conduct of armed combat in coastal directions and in theaters of naval warfare, in the course of which, depending upon concrete conditions of the operational-strategic circumstances, the necessity arises for joint accomplishment of missions by various branches of the armed forces.

For the achievement of success in modern joint operations the need arises for the utilization of all branches and types of armed forces as a whole and each of them individually, which would give the maximum results, and at the same time each branch of the armed forces would be utilized most advantageously in conformance with its peculiarities. In this every type and branch of the armed forces resolves a general task, not substituting for and not interchanging with other types of forces, but complementing their strengths.

Joint operations are characterized by the speed of development, rapid tempo and great depth of attacks, the decisiveness of action, the massing of forces in the main directions, and rapid and organized maneuvers, and are conducted in complex, tense and sharply changing situations. Because of this there are high requirements for the organization and realization of coordination between the navy, air and land forces.

Coordination must be continuous. Ensuring continuous and closest coordination of the fleet with land troops and with the air force during the course of a battle requires exceptional organizational ability, preciseness, speed and coordination in work, high culture and personal knowledge of one's work, and the precise and irreproachable fulfillment of his obligations by every executor. The organization and realization of coordination in battle requires great knowledge and great creative work from the commanders and staff personnel of all degrees and of all branches and types of armed forces.

The general bases of joint actions of land troops, the navy and air force are: unity of goal, unity of concept and plan of action, unity of command, and concentration of the combined strength of all forces and devices participating in combat actions for the attainment of the general goal established by the superior commander.

Depending upon the general goal and concept of a joint operation the general and particular missions for land troops, the air force and for the fleet are established both for the entire operation, and for its individual stages. These elements are basic for determination and development of the means and order of coordination of units and sections of the fleet and land troops participating in the operation, in conformance with their combat characteristics and operational-tactical capabilities.

The fleet, when participating in joint operations, accomplishes its missions either in tactical or operational coordination with the troops of the front. When the fleet is performing independent naval operations units and sections of other types of armed forces may be detached to strengthen the fleet through the accomplishment of partial missions in the interests of the operation being conducted.

Experience of World War II has shown that combined operations in coastal areas are conducted by the forces of one or of several fronts and the fleet. Thus, for example, the second and third Ukrainian fronts and the Black Sea Fleet participated in the Yassko-Kishinev operation, The Leningrad and Karelian fronts, the Red Banner Baltic fleet, and the Ladoga and Onega flotillas participated in the operation for liberation of the Karelian isthmus and Karelia, and the first, second and third Baltic fronts and the Baltic fleet participated in the operation for liberation of the Baltic Soviet republics.

An example of combined operations conducted by the forces of one front and fleet is the Petsamo-Kirkeness operation in 1944, in which a large grouping of the German-Fascist troops was destroyed and the entire Soviet Arctic region and Northern Norway were liberated by troops of the Karelian front together with the Northern Fleet. Another example of such an operation is the Crimean operation of the troops of the Fourth Ukrainian front and the Black Sea fleet in 1944. The fleets in these operations were utilized directly against the naval forces of the enemy and were coordinated with their own troops in the destruction of the foe on the coast.

Sometimes the necessity arises for conducting a coordinated operation of the army and fleet in a single direction including part of a coastal and naval theater of military action. This usually occurs when the combatant parties are separated by extensive body of water which they must dominate before being able to develop an offensive on the enemy shore. Such operations include naval landing, and anti-landing operations.

Naval forces may develop military action in a single general, or in a contiguous direction with land troops, and in these cases the troops conduct operation in the region of the theater directly adjacent to the sea. In this case the fleet may conduct operations and military action directed toward coordination with the coastal flank of the army, and

through accomplishment of the mission entrusted to it, may directly influence the action of the land forces.

It is characteristic of fleet operations which are conducted in the course of coordination with the coastal flank of the army, that the actions of the naval forces are completely determined in their date, locality and sequence of accomplishment of the mission by the concept of the operations conducted by the land troops on the coast.

If in coordinated operation the fleet extends assistance to troops, thereby enabling the most rapid attainment of the goal of the operation, then land forces also must extend the necessary aid to the fleet; moreover in certain cases the fleet cannot support the troops if they do not create the conditions necessary for this support.

Land forces, conducting an offensive along the coast and taking it, must take sea ports and ensure bases for the fleet, from which the naval forces may then develop military action in coordination with the troops. The lack of bases may hamper the fleet in its actions and limit its combat operational capability.

It must be remembered that it is impossible to utilize ports occupied in an offensive for a certain period of time because of obstruction of their waters by mines and because of the destruction of various port and base installations.

Naval forces frequently lack in the aid of aircraft of land troops for conducting coordinated attacks upon the enemy at sea and for defense of ships from the attacks of hostile aircraft, and in the detachment of troops for the organization of land force, and artillery defense of newly organized naval bases.

The coordination of the fleet with land forces creates favorable conditions for the complete utilization of naval forces in a given theater of war, which in the end result enables attainment of the sole goal of the destruction of the enemy both on land and on the sea.

The emergence of new types of weapons and military technology inexorably brings after it changes in the methods and means of conduct of battle, operations, and war in general, i.e., exercies a direct influence upon the development of military and naval art. At present it is impossible to live and be satisfied with only one past military experience, such as was World War II, even though it did provide rich experience in this field. This is why the most important mission of military cadres must be the continuous improvement of the methods of conducting modern warfare, based upon a deep and careful study of modern means of battle and knowledge of their tactical-technical and combat characteristics. In addition, it is necessary to have a good

knowledge of our probable enemies, their means of battle, and their tactics, and to develop creative means of combatting them.

In this great and multifaceted work an important role is played by the problems of improvement of the organization and ensuring coordination between land forces, the fleet and the air force. It is necessary to learn how to restore rapidly destroyed coordination and to organize it anew for the fulfillment of new missions arising during the course of an operation or battle.

RESPONSIBILITY FOR MILITARY AND SHIPBOARD EQUIPMENT

Sovetskiy Flot
/Red Navy/,
23 October 1959, Moscow,
Page 3,
Russian nsp

Captain 1st Rank V. Russov,
Chief of Section of a Service,
Rear Services of the Navy

I request advice on the many questions concerning shipboard equipment. In particular, I would like to have explained the types of equipment, their order of writing-off, and the definition of the materially responsible person and whether regular sailors and non-commissioned officers may be included in this category. From whom and under what circumstances is financial reparation required for damage to equipment?

Engineer Lieutenant V. Petrov

Under contemporary conditions a great amount of various material goods are at the disposal of ship and unit officers. A good knowledge of the general situation concerning military and shipboard equipment is necessary for the correct organization of their storage and consumption and for their accounting and accountability.

In all cases the responsibility for leadership of the materiel management of a ship, unit or subdivision rests with the commander. He bears complete responsibility for the correct operation and legal use of all equipment, and for the maintenance and careful accounting of all materiel and finances which are at his disposal.

In order to correctly dispose of the equipment entrusted to him an officer must study the appropriate guiding documents on military management, and must study the circumstances and directives pertaining to individual types of supply.

Thus we return to the question of Engineer Lieutenant Petrov as to the types of equipment and their order of writing-off.

Military equipment located on shipboard and in units is divided into the categories of expendable, table of organization, and inventory equipment.

Expendable equipment and expendable materiel are those which are intended either for single use or for a term of service less than one year (cables, electric bulbs). Norms of supply are provided for this type of equipment.

Table of organization equipment is included in the table of organization and equipment, and norms of the individual types of supply are provided for inventory equipment. Both these categories include items and objects with established terms of service exceeding one year. These include items such as flags, tarpaulins, kitchen and table utensils, casings, bottles, bed linen, and similar equipment.

The term of service of equipment refers to the greatest period of time during which it must be operated or used. It goes without saying that the expiration of this period may not be taken as a basis for removing any particular object from exploitation if according to its condition with or without repair it still may be used.

The table of organization, and inventory equipment also include objects which do not have an established period of operation or use. These include instruments, electric laundry irons, etc.

Equipment which cannot be repaired on shipboard or in the unit is given to agencies which supply money, food or clothing and which are equipped with repair shops.

Objects which are unsuitable for further use are permanently written off according to the order of each type of supply. The order of discarding as spoilage, and writing-off of equipment may be found in the directives for supply of the corresponding types of equipment.

Equipment which becomes unserviceable before the established period or which is lost is removed from the accounting book or card and entered in the shortage book. This damage may be written off only after the commander of the ship or unit has conducted an inquiry or administrative investigation and has arrived at a decision. The bases for writing off sums from the book of shortages are evidence pertaining to charging the loss to the account of the state, exacting payment of the sum in question from the persons responsible according to administrative action on the basis of an order issued by the ship or unit commander, or exacting payment on the basis of a court decision (sentence) in this matter.

Materially responsible personnel are those to whose immediate charge material goods, equipment, money or valuable documents have been entrusted permanently or temporarily for storage, consumption, transportation or distribution, but are not in the personal use of them or their subordinates. All officers, plus sailors and noncommissioned officers voluntarily serving beyond the required period may be materially responsible personnel.

Sometimes officers ask how the preservation of equipment may be ensured which, for example, is charged to the commanders of electromechanical subdivisions but are used by other troops.

To avoid irresponsibility in the exploitation of equipment a careful personnel file must be kept which enables determining in whose possession the equipment is at any time. In addition, periodical inspection (inventory) of all equipment must be conducted no less than once a year.

In the case of unserviceability or damage the guilty persons are subjected to material or disciplinary responsibility action.

In every case the damage or theft of equipment must be appraised in detail, and the degree of culpability of the servicemen involved must be precisely established.

Actual experience has dictated that sailors and noncommissioned officers serving their regular term of duty may be held materially responsible in their administrative order only when wasting of clothing issued for use by the personnel, or loss or misappropriation of flight technician's clothing or navigator's equipment is proved. In all other cases of causation of material damage they are responsible for material goods entrusted to them under disciplinary, or in the proper cases, under criminal action.

In cases in which subordinates cause losses through lack of control or other infractions of the established order of storage and expenditure of military equipment or funds, the subdivision, ship and unit commanders, who did not ensure preservation of the valuables, also are held materially responsible. This order of material responsibility which exists in the Armed Forces requires all the command staff and command personnel to continuously concern themselves with the conservation and careful expenditure of military equipment and materiel.

Officers and personnel voluntarily serving beyond the required period are held materially responsible for losses caused to an extent not exceeding their monthly pay scale. If these servicemen are materially responsible personnel, they are required to cover the entire loss caused, provided its cost does not exceed a sum equal to three months' pay. Withholding more than three months' pay from officers and personnel voluntarily serving beyond the required period is possible only in conformance with a court decision.

In conclusion I should like to emphasize once more that the command staff and command personnel bear great material responsibility for the careful storage, and correct expenditure and accounting of the equipment entrusted to them. The facts of the matter require them to manage military and shipboard equipment with awareness and with a great feeling of responsibility.

MOBILE TECHNICAL EQUIPMENT DEPOTS

Sovetskiy Flot
/Soviet Navy/,
23 October 1959, Moscow,
Page 2,
Russian nsp

Engineer-Captain 2nd Rank S. Dvorkin

I should like to express several observations on the organization of the so-called mobile technical depots. It is well known that without such depots it would be impossible to make necessary repairs to arms and equipment when ships are located at temporary bases.

We organized a mobile depot based on the MAZ-200 truck. This was no easy task if for no other reason than the fact that the nomenclature of technical equipment contains tens of thousands of items. The problem was to predict and select from these the items which would be needed most in the field. Solution of this problem required excellent knowledge of the technical conditions of ships, and of many other things. In the final development of a catalogue of the equipment of the mobile depot it proved very useful to call in supply men, operation personnel, repair personnel, and experimental mechanical engineers and petty officer specialists.

It is very important to take into consideration not only the weight of the quipment, but its packaged dimensions, as well. It is best to use small-size boxes in packaging. Bulky packaging complicates the search for necessary parts. Large boxes are difficult to move, and the head of the depot does not have very many personnel at his disposal.

Approximately six and one-half tons of equipment was selected for the mobile depot which we developed. The depot was headed by Lieutenant Colonel of Technical Service Vatchenko, with Chief Petty Officer Isakov and Petty Officer 2nd Class Romanov detailed to his assistance. They were also assisted by Seaman Surikov, as truck driver. Upon arrival in the field the truck was partially unloaded, and a tarpaulin was spread over the equipment, which protected it from inclement weather and provided light discipline. Incidentally, in cold, rainy weather it is good to have a truck equipped with a trailer which may be used to house the personnel.

The personnel complement of the depot must meet extremely high standards. The maintenance man must be especially well trained. As a rule this man is a chief petty officer who is proficient in electrical technology and in Diesel and in steam power machinery. He also must know how to use catalogues and must be familiar with the field of application of various types of technical equipment.

The head of the mobile depot carefully considers the demands of the consignees, and collects all critical notations on the work of the depot and on the quality of supply. His notes will constitute valuable data which will be utilized the next time a mobile depot is organized.

The foregoing are several thoughts which arose in connection with analysis of the work of organization of a truck-mounted mobile depot. The creation of floating depots is of no less interest. Such a depot recently was developed in one of two holds of a self-propelled barge. It was headed by Engineer Captain 2nd Class Zolotnitskiy. Working with him were maintenance men Petty Officer 1st Class Yakhinovskiy and Seaman Demkovskiy.

The selected stores comprised a load of approximately 35 tons. Experience has shown that in the development of such a floating depot it is advantageous to detail the entire barge. This makes it convenient to store large and heavy parts in one hold, and to install a collapsible rack for small boxes in the other hold. The racks must be fitted with attachments to prevent the boxes from falling when the barge pitches or rolls. The holds must not be overloaded because this makes the removal of the necessary equipment difficult. The large boxes must be marked on top, so that the markings may be read from the hatch of the hold. Upon agreement with the barge captain a certain area in the crew's quarters or in the cabin is detailed for working with technical documents and for relaxation of the depot personnel.

The development of full-value mobile depots serving ships at points removed from the base is an important task of the officers of the rear services. Experience in the organization of such depots must be persistantly accumulated.

COME TO KRASNOARMEYSK 14
/Air Defense Training Center/

Sovetskiy Patriot
/Soviet Patriot/,
11 November 1959, Moscow,
Page 4.
Russian nsp.

V. Sokolov

A clear summer day... To the left, to the right, far on the horizon, everywhere there are houses, houses. The large city is living its ordinary life: the chimneys of factories and plants are smoking, traffic lights are blinking at intersections, directing the flow of traffic... Gradually the outlines of the streets are hidden by the twilight. In the sky, which is becoming darker by the minute, the stars appear one after the other.

Suddenly the stillness of the peaceful night is broken by the long, sharp howl of a siren: air raid alert! Instantly, lights are extinguished everywhere, and the city is pluged into darkness. From far off is heard the rumble of air "battle." This is the PVO /Protivovozdushnaya Oborona -- Antiaircraft Defense/, protecting the city and repulsing the attack of the air "enemy." One of the aircraft of the "enemy" succeeded in breaking through. It "drops" an atom bomb on the city...

The MPVO /Mestnaya Protivovozdushnaya Oborona -- Local Antiaircraft Defense/ fire brigade fights the fire selflessly. Organization, precision and calmness, these enable reduction of the number of victims and destruction to a minimum. This is constantly repeated by the voice of an announcer coming from loudspeakers. The people act skillfully and quickly, aiding each other when necessary. There is no panic among the population. They actively participate in the effort to liquidate the after-effects of "atomic attack."

This restores the city to the condition of the evening before the beginning of this dreadful night. What has taken place before our eyes is only an imitation of an atomic attack, displayed by a diorama of a permanent exhibition of the training-procedural center of PVO DOSAAF /Vsesoyuznoye Dobrovol'noye Obshchestovo Sodeystviya Armii, Aviatsii i Flotu -- All-Union Voluntary Society for the Promotion of the Army, Aviation and Navy/ USSR.

We did not accidentally begin our story of the exhibition with the diorama. This is one of the most impressive of its displays. Although the visitors usually climax their tour of the exhibition by viewing this diorama, the diorama probably ranks first among their impressions of the exhibition.

"It enables us public instructors of PVO," says Mayya Rakova, a worker of the Automobile Plant imeni Likhachev, "always to make it clear how important the means for protection from atomic weapons and the solid practical skills of every citizen in this matter ensures reduction to a minimum of the number of victims in the event of an atomic attack. Panic and disorganization are possible only when a person does not know what to do under any given situation. This means that no pains should be spared in our duty to study this work ourselves and to instruct our friends," concludes Comrade Rakova.

The exhibition is gaining popularity every day. Groups of visitors follow one upon the other. They include students of the MVTU /Moskovskoye Vysheye Tekhnicheskoye Uchilishche -- Moscow Higher Technical School/ imeni Bauman, students of normal and food industry schools, personnel of the Kursk metropolitan terminal, automobile industry personnel... The majority are PVO public instructors and Social activists. This is understandable. There is much useful information in each of the eight halls of the permanent exhibition.

The displays of the exhibition are concentrated in a manner to illustrate the individual themes of the "Ready for PVO" 1st degree complex, with which the public instructors are concerned in their societies.

A group of MVTU imeni Bauman students enters the hall. At once DOSAAF tour conductor activist Reserve Colonel Petr Markovich Bel'chikov gains the attention of the youths. He speaks of the displays in a popular and interesting manner, and answers questions in detail.

There are many displays. Obviously one tour guide cannot satisfy the curiosity of everyone. The visitors themselves help the guide in this respect.

Among the visitors to the exhibition no one is to be found who is not fascinated by it.

"All the displays of the exhibition are very good," is the evaluation which we received from Boris Lyapunov, a MVTU student, from Moscow Food Institute student Tserinturon, from plant worker Sergey Ryabinin, and from many others. They all consider the exhibition to be most informative.

The success of the exhibition is to the merit of the small group of its associates. The two sections which have been established here, the instruction-procedural and the knowledge propaganda sections of PVO, consist entirely of DOSAAF activists, reserve and retired officers, and genuine enthusiasts of defense matters.

Among them are Il'ya Matveyevich Vlasov, Viktor Vladimirovich Zelentsov, Fedor Mikhaylovich Orlov, and others. The gratitude expressed in a book of comments of visitors to the exhibition, written by students of the TsNII /Vsesoyuznyy Tsentral'nyy Nauchno-Issledovatel'skiy Institut -- All-Union Central Scientific Research Institute/ of heavy machine building, public instructors of the Krasnopresnenskiy Rayon of Moscow and others, is addressed primarily to them.

The stream of visitors is growing. At present 10 to 15 groups visit the exhibition per day. Personnel of the training-procedural center of PVO are taking steps to create a genuine school for public instructors. The work plan of the exhibition takes this into account. It is intended, for example, to hold a series of evening sessions for PVO public instructors; a series of special lectures has been prepared for them.

Together with the Moscow DOSAAF city committee, the PVO training-procedural center also has established permanently active lecturers.

IN ONE HOUSE ADMINISTRATION (ANTIAIRCRAFT DEFENSE TRAINING)

Sovetskiy Patriot
/Soviet Patriot/,
2 December 1959, Moscow,
Page 2.
Russian nsp.

M. Titov,
City of Riga

Kalntsiyema, 39-b. In the evenings here in the house administration room many people meet to perform their PVO (protivovozdushnaya oborona -- Antiaircraft defense) pursuits. Under the guidance of a public instructor householders and roomers master the methods and means of protection from destruction from the air. Many of the students had occasion to experience the horror of bombardment and artillery fire during the past war. With their own eyes they saw how persons who were trained in these matters expertly dealt with the consequences of an air attack by skillfully administering aid to the wounded.

The sessions with the householders are conducted by Marlena Al'fredovna Vasil'yeva. She is an experienced public instructress. Having finished her PVO courses several years ago, she is systematically increasing her knowledge and conducting her re-qualification. The most important thing, as is emphasized by Marlena Vasil'yeva, is a love of the subject matter and a high feeling of responsibility for the reliability of her work. She makes careful preparations for the sessions and reads much supplementary literature. Without fail Mme. Vasil'yeva brings visual aids, diafilms and instructional aid material to the sessions. This enables her to conduct interesting sessions, and to answer in detail and at length the questions of the students.

The first session of the "Ready for PVO" 1st degree complex is brought to mind. Long before the lesson Mme. Vasil'yeva hung about on the walls the posters: "What must be known about the means of attack and damage from the air," "External view of an atom bomb," "Military radioactive and poisonous substances," and others. Although the group members already had seen them during the 22-hour course, when they now entered the room they again first went to the posters, scrutinized them carefully and read the captions. The remarks were heard:

"I dare say there is no hiding from an atomic bomb..."

Marlena Al'fredovna answered this remakr at the beginning of the lesson.

Mme. Vasil'yeva then spoke on the basic damaging factors of atomic weapons.

"Where may one seek shelter from them?" asked roomer Berta Yanovna Neydrite.

"The means for shelter from the shock wave and from the light-frequency radiation are around us. The effects of the shock wave are reduced or may be completely warded off by various types of shelter or cover. The harmful effect of light frequency radiation is reduced by light colored clothing, walls, a garden, woods, natural features of the terrain, etc. Consequently persons taking advantage of such shelter or cover will be protected from the effects of an atomic weapon.

Alternating her discourse with answers to questions of the listeners, Mme. Vasil'yeva acquainted the personnel with penetrating radiation, and radiation sickness, explaining the process by which radioactive contamination of natural features of the terrain occurs. The instructor followed this with a talk on chemical and bacteriological weapons.

"At the slightest suspicion of the presence of poisonous substances," reminded Mme. Vasil'yeva, "gas masks must be put on quickly and persons in the vicinity must be warned of the danger. In the event the enemy uses bacteriological weapons the local authorities, personnel of the sanitation-epidemiological station, the MPVO organs, and the police should be notified.

Marlena Al'fredovna requested the students to describe the content of the first lesson and the theme of the second session to their friends and neighbors. Through this expedient Mme. Vasil'yev intended to increase the number of persons participating in the results of the course. The experiment was successful. All who attended the first session willingly carried out the request of the public instructress. On the following day the class hardly was able to accommodate all who wished to study within the PVO group. Marlena Al'fredovna brought to the class gas masks, quilted gauze bandages, protective capes, and other equipment. After the instructress's talk on the purpose and structure of the individual protective measures the students practiced putting the measures to use.

The practical demonstration of fire extinguishing and the de-gassing of an area also will remain in the memories of the group members for a long time.

The sessions on the theme "Self-help and First Aid to Casualties" were interesting and informative. They were conducted by nurses Antonina Spirina and Mariya Tsukur. Householders with stretchers, individual dressings and antichemical packages went out into the courtyards and squares to practice giving first aid to casualties and to carry them to medical posts.

PVO studies here are not limited to studies within the program. The group members strive to impart deep knowledge. Toward this end it is planned to give them lectures on the structure of the atomic nucleus and

on other subjects. Associate of the Institute of Physics of the Academy of Sciences, Latvian SSR, N. I. Skvortsova will give the lectures. Diafilms are shown frequently. The householders already have seen the diafilms "The Atomic Weapon and its Damaging Factors," "Individual Means of Anti-Atomic Protection of the Population," "Shelter and Cover, and Rules for Their Use," "Incendiary Materials and Methods for Extinguishing Fires" and others. All the group members were acquainted with the locations of air raid shelters and with the air raid alert signals.

The organization of PVO studies for householders and roomers is a difficult, troublesome task. This matter is taken with grave seriousness in house administration No 1125 of the city of Riga. The DOSAAF committee receives active assistance from housing, and party organization administrators. The Social Activists, Communist Party members Buyevich, Sevruk, Kagan, Starikova and others have visited several apartment buildings.

The experience of house administration No 1125 at 39-b Kalntsiyema ultisa is worthy of imitation.

DECISION PASSED UNANIMOUSLY FOR WORK (DOSAAF TRAINING)

Sovetskiy Patriot
/Soviet Patriot/,
11 November 1959, Moscow,
Page 1.
Russian nsp.

I. Pozdnyakov, Correspondent,
City of Saratov

From the meeting of active defense members of Saratovskaya Oblast.

The spacious hall of the Saratov officers' home was filled to capacity. Party, labor union, komsomol and DOSAAF (Vsesoyuznoye dobrovol'noye obshchestvo sodeystviya armii, aviatsii i flotu -- All-Union Voluntary Society for the Promotion of the Army, Air Force and Navy) personnel were meeting here to decide the problem of the improvement of mass defense work in the oblast.

The president of the Saratovskaya Oblast Committee of DOSAAF, Comrade N. Kireyev, presented a report.

The recent work of the Saratovskaya Oblast organization of DOSAAF has met with a certain amount of success. Propaganda of technical knowledge has improved considerably, the defense groups have begun operative solution of the tasks which confront them, they have gained authority among the laborers and have become markedly strengthened. Laborers and office personnel, pupils and students, kolkhoz and sovkhoz members are joining the ranks of the Society in ever increasing numbers. The oblast organization increased by 28,000 persons this year, alone.

Youths and girls of the city of Saratov and of the oblast persistently are mastering technical specialties of an applied type. They are learning to drive automobiles and motorcycles, to make parachute jumps, and are studying radio apparatus. Thousands of persons have mastered specialties in which there are shortages in the public economy of our country and now are working fruitfully for the good of the fatherland, and are doing their bit in the advance fulfillment of the grandiose tasks of the Seven-Year Plan. This year thousands of automobile and motorcycle drivers, and a large number of radio operators, boat pilots and other specialists were trained in the oblast. The training of technical specialists is proceeding well in the Saratov, Pugachev, Vol'sk and Balashov city DOSAAF organizations, and in Krasnokutskiy, Novouzenskiy, Yershovskiy, and other rural rayons. Thus during the recent period 1,520 drivers, 840 motorcyclists, 1,000 radio specialists, and 1,211 ranked marksmen were trained in the city of Saratov.

Together with the present reporter, other comrades entered into the discussions and revealed shortcomings and inadequacies which hinder the oblast DOSAAF organization from assuming a leading position in the republic.

There are several rayons of the oblast, such as Ozinskiy, Dergachevskiy, Bakurskiy, Sverdlovskiy, Lysogorskiy and other rayons, in which mass defense work is at an extremely low level. In these places training in the technical specialties is poorly established, mass sport work is neglected, and no DOSAAF organization has been established at many of the enterprises, kolkhozes and sovkhozes. It is not by chance that the Society in these places includes no more than 18 percent of the workers.

The primary cause of these shortcomings is that many rayon DOSAAF committees are not operating in conjunction with the local council, labor union and Komsomol organizations. The presidents of some town and rayon committees of the Society do not rely in their work upon the extensive number of active members, and undervaluate the role of the committees as organs of collective administration. This was mentioned in the reports of secretary of the Engel's town party committee A. Astaf'yev, secretary of the Balashov town party Committee I. Dubinin, secretary of the Saratovskaya Oblast party committee of VLKSM /Vsesoyuznyy Leninskiy Kommunisticheskiy Soyuz Molodezhi -- All-Union Lenin Young Communist League/ I. German, president of the Saratov town committee of DOSAAF A. Kiselev, and others.

The Saratovskaya Oblast Committee of DOSAAF must be seriously reproached for its weak direction of the activity of the rayon organizations. There have been cases in which certain oblast committee personnel, being on missions, paid little heed to the status of defense work. The DOSAAF oblast committee does not devote the necessary attention to cadre work. As a result from time to time some insincere personnel are incorporated in administrative work in the DOSAAF organizations.

All the commentators at the meeting touched on the problems of the development of technical sports in the oblast. This did not happen by chance. These types of sports still are not very popular among the youth of the oblast. In the meantime, said I. Varenikov, head of the board of the DOSAAF Central Committee, the Saratovskaya Oblast committee of DOSAAF has undertaken nothing to change the existing situation. As of June of this year at no time have the problems of the development of the technical and applied sports been discussed in detail at the meetings of the presidium of the DOSAAF oblast committee. Not once have the activist-sportsmen been gathered together for a heart-to-heart talk with them. However, they could give much advice and aid the business council. The youth of Saratov and of the oblast are not very attracted to motorcycling, parachute jumping, and other types of sport. The ranks of ranked sportsmen are growing slowly in the oblast, and the Saratovians do not take a leading place in the republic, and all-union competitions.

At the meeting sportsmen-motorcyclists Yu. Fauyev and P. Goretskiy stated that the DOSAAF clubs do not attend to the cultivation of ranked sportsmen and masters of sport.

"The Saratovskaya automobile club," stated Yu. Fatuyev, "does not look into the matter of the needs and requisitions of sportsmen, and do nothing for the improvement of their skills. It is indifferent also to the activity of the motorcycle section which functions at the Saratov state university, that is to say, the only one in our city. It is impossible to put up with such an abnormal situation."

The growth of the ranks of ranked sportsmen and of other DOSAAF instructive organizations of the oblast is poor. They do not assemble wide groups of active sportsmen about themselves, and do not train public instructors able to import their knowledge and experience to the masses and to give extensive consultation to the youth on the applied types of sport.

Many commentators at the meeting sharply criticized inadequacies in the training of the population in PVO. Instruction in the "Ready for PVO" 1st degree complex is poorly organized in the oblast. In fact, in many rayons instruction in the 22-hour program has not yet been completed at many kolkhozes and sovkhozes. There are facts indicating whitewashing of the situation. For example, president of the Atkarskiy Rayon DOSAAF committee Kravchenko reported that the population of their region has been completely instructed in the 22-hour program. However, testing has proved that no instruction in PVO was conducted in the kolkhozes and sovkhozes of the rayon. Instruction here simply was limited to showing the population films on PVO.

Secretary of the Saratovskaya Oblast party committee G. Tsikin gave a big speech at the meeting of active members.

The conference passed resolutions aimed at improvement of mass-defense and sport work in the oblast, and at rapid elimination of inadequacies in the activity of the DOSAAF organizations.

WORK OF DOSAAF ORGANIZATIONS IN FURTHER DEVELOPMENT OF TECHNICAL SPORTS AMONG YOUNG PEOPLE

Sovetskiy Patriot
/Soviet Patriot/,
15 November 1959, Moscow,
Pages 2-3,
Russian nsp.

P. A. Belov, Chairman of
DOSAAF Central Committee

The events of the recent past indicate a marked warming in the international atmosphere.

At the same time we must never lose sight of the fact that there still are imperialist forces in the world which oppose the improvement of the international situation, and do not wish to give up the arms race and the active preparation of war against the USSR and other socialist countries. Under these conditions it is necessary for us to be, first of all, convincing. As yet no international agreement has been achieved on universal and complete disarmament, and thus henceforth we must strengthen the defensive power of our country and increase the military might of the Soviet Armed Forces.

The speaker then turned to a description of the status of technical sports, which play an important role in the preparation of Soviet youth for work and for protection of the fatherland.

"It must be acknowledged," said Comrade Belov, "that since the Fourth Congress of DOSAAF there has been some improvement in sport work in our society. The technical sports are spreading to the masses. Thus, for example, there has been a one-and-one-half to two-fold increase in the number of persons engaged in automobile, motorcycle, amateur radio, aviation, water and marksmanship sports since 1957. The first steps have been taken in increasing the mastery of sports by our sportsmen. At present there are 1,767 masters of sport in our Society, 43 percent of whom received this rank after the Fourth Congress of DOSAAF. Up to the present time sportsmen of the Society have established 91 world, and 221 all-union records.

"However these are only the initial results, and they cannot satisfy us. We still are far from attaining the level of sport work required of us by the resolutions of the Fourth Congress of DOSAAF, the tasks of the Society which derive from the resolution of the XXI Session of the party."

The speaker then touched upon individual types of sport which are cultivated in our Society.

Speaking of the sport of motorcycling, he noted that this still has not become a sport of the masses. The achievements of our sportsmen still

lag behind the best foreign results. The cause of this may be found not in a lack of material bases, which frequently is cited by devotees of the so-called objective causes, but in poor direction of the motorcycling sport. We are far from exploitation of all the possibilities for development of this sport which are available to us. Let us examine only one example. There are only approximately 10,000 motorcycles in the leading DOSAAF organizations and in the personal use of DOSAAF members in the city of Omsk and in many rayons of Omskaya Oblast. In 1958, 40 sport commands were established at the initiative of komsomol members and youths, unifying more than 200 motorcyclists. Six hundred eighty-two motorcyclists participated in the contests. However, the Omskaya Oblast DOSAAF committee and its former president, Comrade Danilov, did nothing to consolidate and improve these initial successes. As a result more than half of the command dissolved. The Omsk and Tarskiy automobile clubs do not occupy themselves at all with sport work. During the four years of its functioning the Tarsk club has not organized a single contest. In Omsakaya Oblast not a single master of sport has been trained, and only one man has the first class rating.

The same situation with respect to motor sports exists in the Chita, Kirov, Moldava and many other organizations and automobile clubs.

The automobile sport still has not been developed as it should. A large portion of the automobile clubs, in particular the Vladimir, Perm', Krasnoyarsk, Smolensk and Astrakhan clubs, stand aside from automobile sports. Automobile sport commands and sections have not been established in these places, and persons who own their own automobiles are not very attracted to the sport of automobile management.

The DOSAAF committees devote extremely little attention to model automobiles. Although a little of this is done in Rostovskaya Oblast, in Moscow, Leningrad, Riga, in the Ukraine and in Kirgiz, nothing is being done in the majority of the oblasts of the Russian Federation. DOSAAF committees such as those of Georgia, Lithuania, Moldavia and Estonia have not once turned out a command for participation in automobile contests.

It is time we eliminated the undervaluation of model automobiles, and to pursue this sport as is fitting.

Speaking of the radio amateur sport, the speaker noted that the number of radio amateur sportsmen who have completed the sport norm classification increased considerably after the Fourth Congress of DOSAAF. At present there are 9,880 amateur radio stations in our Society. The majority of them maintain contact with radio amateurs of all countries of the world. Soviet short wave operators were victorious in 14 international contests.

However, not even amateur radio sport is free from serious shortcomings. Many radio clubs still shun a wide circle of radio amateurs, preferring to deal with individual sportsmen. Many commands of radio operators were organized on their own accord. The radio training division of the DOSAAF Central Committee and the Central Radio Club display little initiative in searching for improved forms of work.

For a long time the ranks of sportsmen-radio amateurs have not been supplemented with fresh, young forces. This is one of the reasons why our high-speed radio operators were unable to take first place in the international competitions held in Peiping last year. In fact, the average age of the Chinese sportsmen participating in these competitions was 22 years, compared to our average of 35 years. Frankly speaking, we must pay attention to the age group of our sportsmen in other types of sport. In these fields also, there are many persons who are at the limit, or who already have lost their sport form.

In describing the status of the aviation sports, Comrade Belov declared that during the past two years the quality of contests has improved, and the number of aviation sportsmen participating in them has considerably increased.

At the present time the Soviet Union holds 114, and the USA holds 102 of the 344 world records listed by the International Aviation Federation.

All this indicates that the aviation sports in DOSAAF have been strengthened somewhat, and have become more of a mass sport. However, this does not give us the right to consider the status quo to be satisfactory. During recent years we not only have failed to establish a single world record in the sport plane class, but we also have lost the records previously won. The number of world records established by Soviet glider pilots is decreasing. Soviet pilots now hold only two of the 32 records listed by the FAI.

The shortcomings in aviation sports are explained primarily by the fact that many committees of DOSAAF organizations do not concern themselves with aviation sports. It is impossible to put up with this situation.

We must devote serious thought and make a great effort for the improvement of aviation sport work.

Comrade Belov, speaking of the motor boating sports, reported that the number of hydroplane /skuter/ and motorboat drivers increased more than four-fold over the 1957 level. The skill of the sportsmen also has increased; they established eight all-union records this year. The DOSAAF heterogeneous command is the USSR motorboating champion.

The all-round water athletes /morskiye mnogobortsy/ came off victoriously three times in international meets.

A new type of competition is the water lifesaving sport /sportivnoye spasatel'noye mnogobor'ye/, introduced for competition of the skills of rescue station personnel and life-saving brigades.

The skill of boat modelists is improving. The underwater sport is developing successfully. The country's first underwater sport club was opened this year in the Crimea.

In addition to the foregoing it must be acknowledged that water sports have not been developed in the majority of DOSAAF organizations. The extent of their development does not meet the demands of the great mass of youth. The indexes of our sportsmen are considerably below the world level of achievement. Thus, although a speed of 69 km/hr is considered a record by us for a hydroplane with 175 cc displacement, the world record for this class is 75 km/hr.

"May I say a few words about swimming?" said the speaker. "It is not necessary to convince anyone of the usefulness and practical significance of this sport. But we must agree with the bitter truth that in our organizations the training of sportsmen-swimmers is drifting along."

The Azov-Kuban-Black-Sea swimming relay used by the Krasnodarskiy Kray DOSAAF Committee in conjunction with the Kray Komsomol Committee and the Council of Soviet Sport Societies and Organizations appears to be a good procedure. In 1959 more than 100,000 persons participated in the relay. Similar procedures may be used in other regions of the country. However, at the present time nothing has been done for dissemination of the experience of the Krasnodarsk group, and none of the committees has become inbued with their excellent initiative.

The DOSAAF organizations have achieved mass-sport proportions and have achieved well-known successes in the development of the sport of marksmanship. The number of participants in the marksmanship competitions held during the first half of 1959 increased considerably. After the DOSAAF congress our marksmen established 56 Society records, 12 of which are USSR records, and two surpass the world records. Our marksmen often are winners in international competitions.

Marksmanship-sportsman work of DOSAAF organizations has yielded good results in Leningrad, the Irkutskaya, Gor'kovskaya and Chelyabinskaya oblasts, and in the Ukrainian, Georgian and Kazakh republics. For example, in Irkutskaya Oblast and in Leningrad one out of five DOSAAF members participates in the sport of marksmanship. Here experienced trainers have been attracted to work with the sport commands, and

instruction-training work is regularly conducted with the marksmen of the heterogeneous commands.

However, the sport of marksmanship is in an unsatisfactory state in the field of organization. Not one master of sport has been produced by the marksmanship clubs of Primorskiy Kray, or Arkhangel'skaya, Kalininskaya, Orlovskaya, Penzenskaya and Orenburgskaya oblasts. Relatively few DOSAAF members are active in the sport of marksmanship in the Moldavian and Lithuanian SSR's, and in Kurganskaya, Bryanskaya, Astrakhanskaya and Smolenskaya oblasts. The technical results of the sportsmen is low. Sportsmen are not provided with the necessary training in the Belgorod, Vologda, Kaluga, Kursk and several other organizations.

"Thus, summing up the foregoing," stated the speaker, "we may draw the following conclusions.

"Firstly. The demands of the Fourth All-Union Congress of DOSAAF relating to drawing wide masses of youth into regular pursuit of the technical sports and to increasing the skills of our sportsmen are being fulfilled extremely slowly in our Society. Our sports work at present is built upon a narrow circle of sportsmen, and new reinforcements are being drawn into the organization very slowly.

"Secondly. Many republic, kray, oblast, town and rayon DOSAAF committees are contending themselves with serious deficiencies in the development of technical types of sport. Furthermore, some of them directly undervaluate this important part of our work. Exactly because of this a considerable portion of the leading organizations of the Society stand aside from sport.

"Thirdly. Many DOSAAF clubs have isolated themselves from sport work. We must make special mention of our central clubs. They still are not instruction-methodological centers, and have a weak influence upon the development of mass sports and on the improvement of skills of sportsmen.

"Fourthly. The connections between the apparatus of the Central Committee of DOSAAF with the public is inadequate, and its direction of the work of the all-union sport sections is weak: it does not exercise the necessary control over the activity of the committees and clubs in the production of trained sportsmen. The necessary and required demands upon those committees, which are insufficiently concerning themselves with the development of technical sports, are not being manifested.

"The fulfillment of this task may be ensured only through the forces of all the DOSAAF committees and clubs through their friendly mutual work with the komsomol and sport organizations of the country. The undervaluation of sport work must be eliminated, and the direction of this work

by the Central, republic, kray and oblast DOSAAF committees must be sharply strengthened. The problems of the further development of the technical types of sport must be dealt with continuously, deeply and thoroughly.

"Starting with the availability of a material-technical base and instructor-trainer personnel staff, we may set the task of: training no less than 1,500,000 amateur-sportsmen during 1960-1961, including 100,000 sportsmen of first rank, and 1,300 masters of sport.

"We have a realistic possibility for annually training: 50,000 sportsmen of first rank, 100,000 sportsmen of second rank, and 600,000 sportsmen of third rank.

"For successful fulfillment of this task before the Fifth Congress of DOSAAF, every leading organization, every committee and club of DOSAAF must determine its place in this general and important matter.

"The DOSAAF committees, relying upon the active assistance of the komsomol organizations, must develop and conduct daily, practical measures for increasing the skills of the sportsmen. These measures must provide for mass training of ranked sportsmen and masters of sport in each republic, kray, oblast, town and rayon organization of the Society, the formation of heterogeneous commands for technical types of sport, and for the establishment of new oblast, kray and republic records.

"Through the active participation of komsomol organizations the existing sport commands in the leading DOSAAF groups must be strengthened organizationally and their active functioning ensured in the immediate future. It must be recommended to DOSAAF sportsmen of small enterprises, institutions and kolkhozes to merge with their neighboring larger organizations.

"It is a matter of honor for all masters of sport and sportsmen first rank to assist the young sportsmen with their experience in increasing their sport skills. During the course of one year every master sport and sportsman first rank can train no fewer than 4 or 5 sportsmen of first or second rank.

"One of the important tasks is the achievement of good training for entering world, and international championship competitions. For this it is necessary first of all to take a more serious approach in the selection of sportsmen, to supplement the commands with capable young sportsmen, and to raise the level of instruction-training, and conditioning work in the commands.

"Extensive development of occupation with model rockets must be attained within the DOSAAF organizations. Even before World War II

sportsmen built model rockets and launched them in contests. For some reason this interesting form of model building has ceased at present. Is this right? No, it is not right. A wide path must be opened for model rocketry.

"Recently a certain upswing has been noticed in sport work in rural areas," said the speaker. "Motorcycling, parachute jumping, gliding and amateur radio sports are beginning to take hold in the DOSAAF organizations of kolkhozes, sovkhozes and RTS's.

"However, it must be admitted that this is a very slow process. As a rule the rural DOSAAF organizations occupy themselves with the sport of marksmanship. The republic, kray, and oblast DOSAAF committees do not devote the necessary amount of attention to the development of technical sports among rural youth. This is indicated by the fact that we hardly ever find sportsmen from kolkhozes, sovkhozes and RTS's among the participants in oblast and zonal competitions, to say nothing of all-union meets. This situation is completely intolerable.

"Our task is to increase the number of rural sport participants to two million during 1960-1961.

"The availability of a sport-instruction base and cadres of instructors and trainers is necessary for solution of this task. The practice of many rural organizations indicates that DOSAAF members are able to ensure their material base from their own means and resources.

"The matter of the training of public instructors and trainers, however, is more complex. Nevertheless, there is a way out of the situation. The higher and secondary educational institutions, which produce cadres of specialists for working in agriculture, graduate more than 600,000 persons annually. The republic, kray and oblast DOSAAF committees must establish the task for the leading organizations of these educational institutions to train public instructors and trainers from among the number of persons graduating from higher educational institutions, technical schools and schools, and if only ten out of one hundred graduates are trained, then we should have 60,000 public instructors per year, able to head up sport work in the DOSAAF organizations in rural areas.

"The development of sport work in rural areas must be stimulated through the organization of regular sport contests between commands within the primary organizations of kolkhozes, sovkhozes and RTS's for leadership within the rayon. It is recommended that the DOSAAF committee create traditional mass sport competitions, spartakiads and relay races of the rural youth, dedicated to honored dates. Masters of sport must be sent to the rayons to participate in the local competitions and meets.

"In the opinion of the presidium of the DOSAAF Central Committee it is completely realistic to set the following task: the training of sportsmen of third and second ranks is to be organized within the rural groups of DOSAAF in the marksmanship, water, motorcycling and amateur radio sports, and at the same time participation in parachute jumping, gliding and other types of sport is to be encouraged in every way.

"A great task to be conducted in the schools confronts us," said Comrade Belov. "In the groups created within the leading organizations of DOSAAF the schoolboys devote themselves to useful work, become builders of model airplanes, gliders, ships, automobiles and tractors, they take up the technical sports, and accomplish absorbing campaigns for their native region. Thus you see the field of work is very attractive and useful for the education of the coming generation.

"At the same time, however, it must be said that the level of sport work in the schools does not conform to the tasks and to the existing possibilities. In most school organizations marksmanship is the only sport which thrives. Model building, which is an absorbing type of sport for children and youth, is very poorly developed. Almost no attention is devoted to the development of motorcycling and water sports.

"All this is explained by the fact that the DOSAAF committees maintain inadequate connections with komsomol and pioneer organizations, with the public culture organs, with the teachers' societies and with the parents' committees. It must be acknowledged that the administration of the DOSAAF Central Committee devotes little attention to sport work in the schools.

"Within two years we must effect a two-fold increase in the number of juvenile and third-rank sportsmen in the schools, so that by 1962 no less than 10 percent of the DOSAAF-member-students will have met the norms for these ranks. Achievement of this task will require supplementary training of instructors and trainers of sport commands. For the latter it is very important to unify the forces of the DOSAAF committees, culture divisions, administrations of labor reserves, and to organize courses for the training of public instructors on the basis of sport clubs of the Society, and of rayon and city pioneer homes, and palaces and homes of culture which have model laboratories.

"The DOSAAF committees must draw up an annual calendar of sport contests of DOSAAF primary organizations of schools for the technical types of sport. The calendar plan must be so constructed that senior rank DOSAAF members in rayons and cities should participate no less than 2 or 3 times per year in various competitions. In addition to competitions, the plan must provide for the conduct of militarized campaigns, such as hiking, skiing, sailboating, exhibitions of the creative works of radio amateurs, and review of models.

"In May 1962 the pioneer organization imeni V. I. Lenin will have completed its 40th year. In this connection we make the following suggestion: that during the years 1960-1961 an all-union model review be conducted in the schools, dedicated to this date which is so significant for our children.

"Sport contests are an effective means for the improvement of sport skill, bringing out new sportsmen and for sport propaganda." The speaker emphasized the necessity for ensuring compulsory conduct of contests in all types of sports, competitions for achieving the sport ranks, and meets between shop sport commands and commands of the primary organizations.

"Every primary organization, every city, rayon, oblast and republic must persistently strive to have trained sportsmen, and must constantly strive for the improvement of their sport skills. In this connection the accounting of sport records in the Society must be regulated, and beginning in 1960 compulsory registration must be conducted of republic, kray, oblast, city and rayon records in all types of technical sports.

"Spartakiads, which have become traditional in the Society and which always are conducted with the most active participation of the komsomol, play a great role in the development of the technical sports. We consider it necessary to hold the Fifth All-Union Spartakiad of komsomol members and youths in the technical sports in 1961 with the Central Committee of VLKSM and the Central Council of the Union of Sport Societies and Organizations of USSR.

"The interests of this matter require radical improvement of the sport activity of clubs of the Society. They must be supplemented with trained instructors and trainers having the necessary sport training and able to conduct work with the young people.

"The further work of the clubs must be oriented toward the development of sport among young people and toward effectively enabling the rapid growth of sport achievements. The clubs are obligated to strengthen attention to the organization of sport work in the primary organizations of the Society and to the training of first and second-rank sportsmen, masters of sport, and of public sport cadres. The role of the central clubs in this work must be especially emphasized. They must devote most attention to the preparation of trained sport personnel. They are to be entrusted with the development of plans and programs of instruction, instruction-procedural material, advice, and extending practical assistance to the DOSAAF committees in work with sport personnel."

The speaker spoke further of the role of self-help clubs in the development of the technical types of sport. The initiative of the

founding of these clubs, approved and supported by the Fourth Congress of our Society, produces good results. It is sufficient to say that at the present time there are more than 600 self-help sport clubs in the Society. These clubs conduct great and useful work in the instruction of Society members in technical specialties, they develop the technical sports, conduct mass competitions, militarized campaigns, hockey games, competitions, and relays, and some compete on an equal footing with regular clubs of the Society in all sport contests. Ranked sportsmen, public instructors, trainers and judges are trained in the clubs, in their sections, groups and commands.

Practice has shown that self-help sport clubs of DOSAAF may be established not only in the primary organizations, but also in the rayon and city committees. The interests of the defense Society, the unification of youth to participate in sport, require that the DOSAAF committees ensure all possible expansion of the network of self-help sport clubs. During the next two years it is necessary to strive for the majority of rayons and cities to have their own self-help clubs, including zonal and inter-rayon clubs. It is clear that all the work of the creation of these clubs must be conducted by the DOSAAF committees together with the komsomol organizations.

The crucial force of all our activity is the public active membership. The sport work in our defense Society is conducted by thousands of public instructors and trainers. It must be admitted, however, that many committees, clubs and administrations of the DOSAAF Central Committee, notes the speaker, are making insuggicient use of these public cadres, and their training and retraining is of a haphazard nature.

The training and retraining of public instructors and trainers must be entrusted to the corresponding clubs. Courses with a definite plan and program of instruction must be set up in the clubs. The expenditures for the training of personnel must be borne by the committees themselves on the account of funds formed by payments from membership fees, receipts from over-plan cost accounting, and other revenue.

To attract even more public active members to the work of the development of technical sports in the country it would be advantageous to establish all-union federation of aviation, automobile-motorcycle, amateur radio and underwater sports within the sphere of the DOSAAF Central Committee, and to set up sections for these sports in the republic, kray, oblast, city and rayon committees of DOSAAF.

The all-union federations under the DOSAAF Central Committee must become public sport organizations, conducting work on the development in the country of the various technical sports. These federations must work under the direction of the DOSAAF Central Committee, with the active

participation of komsomol, labor union, and other organizations occupied with technical sports. The federations may set up sections for the various types of sport. In the federation of aviation sport sections may be set up for aircraft, helicopters, gliders, parachute jumping and model aircraft; the automobile-motorcycle federation may have automobile, motorcycle and automobile model sections. It goes without saying that specialists, masters of sport, trainers, judges, komsomol and labor union personnel, and enthusiasts of any type of sport must be attracted to work in the federations.

The further improvement of our work in the development of technical sports urgently requires still greater and universal strengthening of connections between DOSAAF and the komsomol.

The material-technical base is one of the necessary conditions for further development of the technical sports. The leading organizations and clubs of DOSAAF have begun to receive greater amounts of sport equipment. Thus the number of marksmanship weapons in the DOSAAF organizations increased more than three-fold over the 1957 level, and the supply of motorcycles doubled. In 1960 the requisitions of the committees for sport motorcycles will be satisfied to a considerable extent. Our water sports materiel also has been considerably supplemented. Work also is being done on the planning and building of jet-propelled sport aircraft and gliders. New types of parachutes are being tested. Production is being expanded of outboard motors, underwater sport equipment, and of sport and racing motorcycles and their spare parts; the production of sport cars is being organized. It also is proposed to provide automobile clubs with units and fittings for building sport cars, road cars for sport purposes.

Comrade Belov emphasized that in the questions of supply much depends upon the degree of organization and on concrete work in this field. Close contact must be established with trade organizations and persistent efforts must be made for expansion of the trade of sport goods. The problem in the local council organs of opening specialized stores in each republic center and of the establishment of special sections for sport goods and goods of DOSAAF nomenclature in the kray and oblast centers must be positively resolved.

The number of sport installations of the Society increased during recent years. However, all these sport installations do not satisfy the growing demands of youth. Our construction is increasingly less and of poorer quality, and we scatter our funds on the construction of small objectives. The situation is bad with respect to the construction of airfields, glider stations, motorcycle and automobile race tracks, swimming pools, instruction buildings, and shelter for technical equipment within the organizations of the Society. In conformance with the resolutions of the Fourth Congress of DOSAAF every organization of the Society must take concrete measures for the building of sport equipment.

In construction matters our Society has the right to rely upon the assistance of the council, economic, labor union and komsomol organizations. Much can be done by the method of popular building, through the combined forces of komsomol and DOSAAF members. Everything must be done to support and encourage the self-help and initiative of organizations and members of the Society in building sport equipment. Toward this purpose it is proposed to hold a review competition of the construction of sport equipment in DOSAAF during 1960-1961. Beyond doubt this measure will enable us to advance the matter of creation and expansion of the instructional and sport materiel base.

"We must," said the speaker, "devote considerably greater attention to propaganda of our sport. It must have a military, mobilizing, concrete character, and must be closely connected with practical work in the training of sportsmen and with the organization and conduct of contests.

"Propaganda for the technical sports is skilfully organized among the population by the republic committee of Bashkir ASSR. Here motorcycle, automobile, sailboat and skiing agitation campaigns are conducted frequently, radio and model exhibits are set up, technical conferences of sportsmen, and meets between youths and masters of sport are held. Exhibits of sport technical equipment are regularly set up in the city parks and clubs, and the best achievements of sportsmen are popularized through the press, radio and television. Each coming sport contest is widely advertised. The active agitation and propaganda for sport is reflected in the improvement in sport work in the republic. Sport propaganda is skilfully conducted in the DOSAAF organizations of the Ukraine, Moscow, Sverdlovskaya Oblast, and the city of Leningrad.

"The periodical press of the Society has begun to conduct more extensive and comprehensive propaganda of the technical sports. Recently the newspaper Sovetskiy Patriot and other newspapers discussed many important questions. Motion picture films have been made of almost all the technical sports which are carried on in DOSAAF. The DOSAAF publishing house has published millions of copies of instructional, procedural and sport literature.

"At the same time, however, the general status of technical sports propaganda cannot be considered satisfactory. That which has been done and which is being done in the way of sport propaganda still does not completely fill the existing possibilities. The level of agitation-propagandist work in the Kurganskaya Oblast and Krasnoyarskiy Kray organizations of DOSAAF is low.

"The newspapers Sovetskiy Patriot and Patriot Bat'kivshchiny and especially the periodicals still devote little attention to the dissemination of advanced experience in sport work, demonstrating the

achievements of masters of sport. The press of the Society is obligated to actively invade the life of the DOSAAF organizations, to assist in their activity, to put forward new questions arising from the practical work of the committees, and to daringly and sharply criticize inadequacies.

"We also would like to ask the VLKSM Central Committee to recommend that the young people's newspapers devote more space to the joint sport work of the komsomol and DOSAAF.

"Despite the general growth in circulation the DOSAAF press still produces little literature on the automobile, water and marksmanship sports.

"The division of military science propaganda of the DOSAAF Central Committee must exhibit more initiative and business ability.

"During the preparation for the present plenum the newspaper Sovetskiy Patriot and periodicals published many proposals and critical comments of personnel and activists of the Society on the question of sport work. The criticism of inadequacies of the work of administration of technical training and sport, aviation training and sport, sea training and sport, material-technical supply, and also of the central clubs is in general, completely true. The heads of administrations and clubs are obligated to take measures for the correction of shortcomings and to take lessons from these critiques for the future. The majority of the proposals put forward by the authors in their articles merit the greatest interest."

In conclusion Comrade Belov said: "At this plenum we raise the question of the radical improvement of our work in technical sports with the purpose of making these types of sport genuine mass sports and for ensuring a further increase in the skills of our sportsmen. This does not mean, however, that we desire the development of technical sports to become a goal in itself. Like all sport in our country, technical sports must be subordinated to the general task of communist education, strengthening the health of our youth, and expanding their technical horizons as is necessary in our times.

"In connection with strengthening of educational work among sportsmen we should like to ask the komsomol organs to aid us in this matter, and to stand closer to our clubs. This, without doubt, will enable us better to train and educate young sportsmen.

"The tasks of the development and improvement of technical sports stand before us as daily tasks of great practical and educational importance. All our forces and attention must be devoted to the successful realization of these tasks. Together with the komsomol and with the active cooperation of the Union of Sport Societies and Organizations USSR we can and must achieve great successes in this matter, and glorify our fatherland with new sport records."

CADRES WILL DECIDE THE SUCCESS OF THE MATTER (WORK OF THE DOSAAF)

Sovetskiy Patriot
/Soviet Patriot/,
29 November 1959, Moscow,
Page 1,
Russian nsp.

Editorial

The Third Plenum of the Central Committee of DOSAAF, which was held recently, concentrated the attention of the organizations, committees and clubs of the Society on the solution of the most important tasks arising for the DOSAAF from the decisions of the XXI Party Session. It is necessary as soon as possible to effect a marked improvement in the activity of the Society in the development of the technical sports among youth, to persistently enrich the content and to improve the form and methods of mass-defense work among the workers, and on this basis attract a majority of the adult population of the country into the ranks of the DOSAAF.

The successful realization of these great and important tasks will require all possible strengthening of lively organizational work among the masses of Society members, and achievement of an uninterrupted increase in their creative activity and self-help. The Central Committee of the Party and Comrade N. S. Khrushchev repeatedly have pointed out that the crux of organizational work and its basic content are the correct selection, appointment and education of cadres.

Guided by these party directives, the Third Plenum of the DOSAAF Central Committee devoted special attention to improvement of the work with cadres in the Society, because the cadres have a primary effect upon determination of the level of organizational administration work, which mostly decides the success of the matter.

At the plenum of the DOSAAF Central Committee it was emphasized that one of the most important conditions which determined the expansion of the activity of organization of the Society, of increasing the tempo and quality of mass-defense work in the Ukraine, in Armenia, Kazakhstan and Uzbekistan, in the Moscow, Gor'kiy, Kostromskoy, Krasnodar and many other organizations of DOSAAF, was a moderate improvement in the work of our committees with cadres and public active members.

The practice of the leading committees of the Society indicate that the basic method of organizational work, instruction and education of cadres and public active members increasingly is becoming the method of convincing and explaining the importance of the patriotic activity of DOSAAF, which gives an objective indication of what and how this is to be done. In this, special attention must be devoted to the instruction of cadres directly on the spot.

Positively evaluating the activity of the majority of committees of the Society in strengthening the acres and improving personnel work, the plenum of the Central Committee of DOSAAF at the same time noted that persons who are weak in business ability and do not manage the matter entrusted to them still are in responsible positions in many DOSAAF organizations. Certain DOSAAF committees permit the existence of shortcomings in cadre work, especially on the rayon link level. Thus, for example, the personnel work of the Mordavinian republic committee of DOSAAF (Comrade Sokolov, president) was subjected to serious criticism at the plenum. This committee poorly investigates the business quality of personnel and how they manage the affairs entrusted to them. Because of this it is not by accident that insincere persons have come to head the DOSAAF organizations in several rayons of the republic. The Lithuanian republic DOSAAF committee (Comrade Zhiburkus, president) also is doing poor work in strengthening the cadres of the rayon link.

The main shortcoming in the personnel work of these, and of the Ul'yanovsk, Irkutsk, and Kurgan DOSAAF organizations consists of the fact that the committee presidents take little personal interest in the problems of the selection, appointment and education of cadres, and care little about improvement of the qualitative make-up of administrative personnel.

V. I. Lenin often stated that in the mass of the people there are organizational talents which must be noticed, advanced, and correctly appointed at the proper time. Vladimir Il'ich teaches that the following type of person should be advanced to leadership positions: "...genuine organizers, persons with a sober mind and practical shrewdness, persons combining devotion to socialism with ability without clamor (and despite confusion and clamor) to set in motion the hearty and friendly joint work of a large number of persons within the framework of the soviet organism."

The DOSAAF organization has great possibilities for the advancement to leadership work within the Society those genuine enthusiasts of our affairs from among the presidents of leading organizations, instructors, committee members, non-staff vice-presidents of committees and other activists. However, because of poor knowledge of these persons many committees very timidly and rarely advance activists to leadership work and, in essence, do not have a reserve of personnel for advancement.

The level of personnel instruction also does not meet up to the problematic tasks of the Society. Increasing of the professional training of the presidents of city and rayon committees and leading organizations of DOSAAF is unsatisfactorily established in many oblast committees. In many cases seminar projects are conducted formally, and year in and year out they discuss the same questions. Individual instruction and familiarization with positive experience is not being carried on in the necessary degree.

The administrational elements have not been overcome in the work with cadres. The presidium of the Belgorodskaya DOSAAF Oblast Committee (Comrade Savin, president), for example, carried out a penalty upon six presidents of rayon committees at one of its meetings. Need it be proved that such an improper practice has nothing in common with the high requirements and with increasing the responsibility of our cadres toward the matters entrusted to them!

Shortcomings in the selection and education of cadres hinders the groups of the Society from raising their organizational activity to a new and higher level. The plenum of the DOSAAF Central Committee emphasized that a sharp turning on the part of our committees and their leaders to work with cadres is necessary for successful fulfillment of the tasks confronting the Society.

This means first of all that the lagging rayons must be dealt with concretely, and that their cadres must be strengthened to good business qualities. Now, when an accounting-selection campaign is unfolding within the Society, the problem of strengthening the lagging organizations with cadres is a problem of first importance. The strengthening of the DOSAAF organizations with inspired, trained personnel able to considerably improve the leadership of mass-defense work among the population will mean the creation of the prerequisites for a significant new step forward in all the activities of the Society.

The presidents of republic, kray and ablast DOSAAF committees and the deputies are obligated to concern themselves with the matter of the selection, appointment and education of cadres. They must have thorough knowledge of every president of city and rayon committees, must know their strong and weak points, and know when they must be supported and in what they need timely aid.

The correct selection and appointment of cadres is only half the problem. A system of instruction of cadres in practical mass-defense work also must be thoughtfully organized. It is very important, for example, as early as December or January, that comprehensive seminars be held with the presidents of leading organizations, immediately followed by seminars with the presidents of city and rayon committees of DOSAAF. At these seminars special attention must be devoted to description of the experience of leading DOSAAF organizations in fulfilling the resolutions of the Fourth Congress of the Society, and to conduct a detailed study of the directives of the Third Plenum of the DOSAAF Central Committee on the development of technical sports among youth and on the problem of the growth of the ranks of DOSAAF. It is useful to acquaint the seminar participants directly upon the spot with the work of the advanced primary and rayon organizations and with the available technical sport equipment, and to read to them many lectures and reports on military-political and military-technical subjects.

It is purposeful to have activists, the better sportsmen, komsomol personnel, and presidents of commissariats for war and MPVO organs, commanders and political personnel of military units give reports at the seminars.

Undoubtedly this approach to the seminars will have very useful results, will enable our cadres to master practical work, will expand their horizons, and at the same time will seriously improve the direction by DOSAAF organizations and will make the seminar more concrete and more purposeful.

It stands to reason the instruction of cadres cannot be limited to seminars alone. Cadres must be carefully cultivated and educated directly in practical work, in overcoming difficulties. Toward these ends it is necessary that personnel of the superior committees visit the localities and thoroughly study the circumstances of the matter directly in the primary organizations, and to work out suggestions together with the rayon committee for the most rapid and best elimination of shortcomings, to give the cadres the nemessary practical aid, and after a certain time check on how the rayon committee has corrected the shortcomings.

Checking upon fulfillment is one of the most effective and proven methods of organizational work among the masses, and also is an effective means for education of cadres. The more public active members are attracted to it, the more effective it becomes. With the aid of activists mutual checking of fulfillment of obligations should be conducted in rayons, cities and oblasts which were assumed in socialist competitions between primary, rayon and city organizations of DOSAAF.

Continuous improvement of cadre work in the Society is a true means for further sharp improvement of all the various activities of DOSAAF, and of successful fulfillment of the resolutions of the Fourth All-Union Congress of the Society.

NEW RECORDS AND OBSOLETE INSTRUCTIONS (DOSAAF GLIDER TRAINING)

Sovetskiy Patriot
/ Soviet Patriot/,
29 November 1959, Moscow,
Page 3,
Russian nsp.

V. Goncharenko, Master
of Sports, City of Kiev

In the decree of the Third Plenum of the Central Committee of DOSAAF USSR "On the work of the DOSAAF organization in the further development of technical sports among youth" a great deal of attention is devoted to increasing the skill of sportsmen and to their winning worldwide preeminence and records. Great demands are placed upon Soviet glider pilots because gliding is one of the most neglected technical sports.

The basic reason which is keeping the glider enthusiasts from doing their best in attaining great sport achievements, in my view, is that they are not familiarizing themselves with the complex forms of flight. As is well known, the all-union and world records at present are very high. To outdo these records they must not only beautifully master the visual technique of pilotage, but also must know how to fly in the clouds, to utilize the powerful cloud currents for gaining great altitudes which enables the development of the necessary speed and to considerably enrich the arsenal of technical methods.

In all countries of the world in which the art of gliding has been well developed the training of sportsmen-glider pilots in blind flying is a task of primary importance. In the People's Republic of Poland, for example, sportsmen-glider pilots undergoing training for the second class (the silver badge, which corresponds approximately to our first rank) are obliged to complete an extensive course in blind flying, after which they transfer to flying in clouds. The results of this training are, so to speak, present: Polish glider pilots hold the largest number of world records, gold and diamond badges.

The director of the Administration of Aviation Training and Sport of the Central Committee DOSAAF also knows that flying in clouds is an important condition for increasing the skill of glider pilots. Nevertheless for many years he has been issuing all possible instructions and directives, categorically prohibiting our sportsmen from mastering this type of flight. What caused this?

Can it be that our gliders are not sufficiently sturdy? No, they exceed all foreign gliders in standards of sturdiness. Can it be that our sportsmen fear clouds? This has not been noticed.

Then what is the matter?

The matter reassuringly and notoriously appears "as though something were lacking." Flying in clouds requires careful preparation and great training of the sportsmen. It would be a sin to hide the fact that such flight sometimes ends in crashes. There have been cases in which powerful currents in thunderhead clouds have broken up even the strongest gliders. But these are only incidental cases. With skillful and correct tactics and flight technique these flights result in no unpleasantness whatsoever.

Let us consider such an example.

Kaluga sportsman Aleksandr Teplykh, member of a USSR heterogeneous command, for the first time established an all-union flight speed record in August of this year during a training period in Sumskaya Oblast while flying a 200-kilometer triangular course. He was able to accomplish this only because on a difficult course which forced down 8 out of 11 sportsmen, he gained an altitude of 2,700 meters. This enabled the sportsman to cover the distance in record time.

Thus although it is the custom to receive the gold medal for setting a record, he also is penalized for infraction of the rule prohibiting entering a cloud. It is true that this prohibition is not extended to the heterogenous command during training periods. It is worth it for the same sportsman Teplykh to return to his air field and attempt to train himself in the clouds because he had already received a penalty for infraction of the rules. Where is the logic in this?

Real glider pilots perforce must know how to fly in clouds. However, they need training for this. But it is prohibited to make such training flights. Does this not explain the unsuccessful showing of our glider pilots in the world championship meet held last year in Poland?

By categorically prohibiting flying in clouds the Administration of Aviation Training and Sport of the Central Committee DOSAAF clipped the wings of our sportsmen. It is not by accident that tens of world records in the gliding sport were taken from us one after the other.

Consequently the prohibition against flying in clouds clearly is obsolete. The technique of flying in clouds must be not prohibited, but must be encouraged and improved in every possible way. Only through mastering this technique may our sportsmen begin an extensive attack upon the world and all-union records.

The rich experience of the organization of such flights and instruction methods gained by our Polish friends and by the best Soviet glider pilots would contribute to the mastery of blind flying not by individuals but by hundreds and thousands of our glider pilots during the shortest possible time. For this, in my opinion, a more rapid

solution of the problem of the supply of special navigation equipment and radio apparatus to the glider pilots is necessary.

The Third Plenum of the DOSAAF Central Committee decided upon the establishment of an All-Union Gliding Club. It is necessary to transform this resolution into actuality more rapidly in order that next summer sportsmen will arrive at the point where the aeroclub will have a permit for mastering flight in clouds for a definite period.

With every passing year the sport of gliding increases in dimensions. Because of this obsolete instructions and all types of reinsurance must not be permitted to hinder its growth or to hinder the attainment of new records. They must be reviewed in the immediate future because they are hindering the growth of skills of glider pilots. A precept must be developed which would correspond to the contemporary level of achievements of glider pilots and would enable the uninterrupted growth of their sport skill.

In this connection I should like to pause in passing, upon still another limitation. It is well known that all world records for distance flights have been established under conditions in which there was strong wind on the course. Thus the famous master of sport V. Il'chenko established a world long distance flight in a straight line for multiple-place gliders (829,822 km) with a 60 km/hr, or 16.6 m/sec wind. In order to better this record a flight with wind no less than the above must be made.

But look what happened on 27 August of this year at the air field of the Kiev Aeroclub. During the course of the entire summer the famous master of sports V. Yefimenko and the present author waited for suitable weather with strong winds to complete an attempt to establish world records in long-distance flight at the above mentioned point for single-place and two-place gliders. Finally the long-awaited weather arrived. Everything was ready for the flight, both the gliders and the sportsmen.

However, the flight did not take place. Flight director Ya. Rudnitskiy did not permit the flight because in the "Instructions for the Organization and Conduct of Soaring Flights in Training Organizations of DOSAAF" it is written that flights in trainer and record gliders are decided at wind speeds no greater than 12 meters per second.

It must be assumed that the comrades who wrote this rule understand that records cannot be established with a weak wind. The experienced glider pilot Ya. Rudnitskiy also was very familiar with this rule. But as flight director he was compelled to saintly fulfill that which was described in the instructions. Thus the attempts to break the world records were nullified, losing the advantage of the weather which had been awaited for years.

It may be mentioned that the instructions were composed taking into account instruction-training flights. This, of course, is correct. However, the wings of the young glider pilot have not yet developed strength, and there is no need to set him loose in flight in a strong wind. However, where an experienced sportsman such as V. Yefimenko is concerned, the fear is groundless.

During long years of development of the sport of gliding in the USSR has been hindered by the lack of the materiel portion of the responsibility of commands. At present we have sufficiently well trained glider pilots, record-breaking single, and two-place gliders have emerged, and new glider stations and clubs have opened. It has been an uphill fight. Now we must act to have our precepts take life and enable the further growth of the skill of the glider pilots.

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